



Draft Environmental Impact Report
SCH No. 2020039038

Moreno Valley Trade Center
City of Moreno Valley, California

Lead Agency



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

Public Review Draft | May 2021

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Lead Agency

City of Moreno Valley
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Moreno Valley, CA 92552

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General Plan Amendment (PEN19-0191)
Change of Zone (PEN19-0192)
Plot Plan (PEN19-0193)
Tentative Parcel Map (PEN19-0234)

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ACRONYMS, ABBREVIATIONS, AND UNITS OF MEASURE

<u>Acronym</u>	<u>Definition</u>
§	Section
µg/m ³	micrograms per cubic meter
a.m.	Ante Meridiem (between the hours of midnight and noon)
AB	Assembly Bill
AB 32	GHG Emission Reduction bill (2006)
AB 197	Companion Bill to AB 32, reduce CA statewide GHG emissions
AB 341	Mandatory Commercial Recycling Program
AB 939	California Solid Waste Integrated Management Act
AB 1327	California Solid Waste Reuse and Recycling Act
AB 1493	Pavely Fuel Efficiency Standards
AB 2595	California Clean Air Act of 1988
ACM	Asbestos Containing Material
ACOE	Army Corps of Engineers
ACWM	Asbestos-Containing Waste Materials
AERMOD	Air Quality Dispersion Modeling
ADT	Average Daily Traffic
AF	Acre-feet
AIA	Airport Influence Area
ALUC	Airport Land Use Commission
ALUCP	Airport Land Use Compatibility Plan
AMSL	Above Mean Sea Level
A-P Act	Alquist-Priolo Earthquake Fault Zoning Act
APS	Alternative Planning Strategy
APN	Assessor Parcel Number
AQMP	Air Quality Management Plan
AST	Above-Ground Storage Tank
ASTM	American Society of Testing and Materials
BACM	Best Available Control Measure
BAU	Business as Usual
bgs	below ground surface
BMPs	Best Management Practices
BP	Business Park/Light Industrial
CA	California
CAA	Federal Clean Air Act
CAAQS	California Ambient Air Quality Standards
CadnaA	Computer Aided Noise Abatement
CalEEMod™	California Emissions Estimator Model



<u>Acronym</u>	<u>Definition</u>
CAL FIRE	California Department of Forestry and Fire Protection
CalEPA	California Environmental Protection Agency
CalGreen	California Green Building Standards Code
CalRecycle	California Department of Resources, Recycling, and Recovery
CalSTA	California State Transportation Agency
Caltrans	California Department of Transportation
Calveno	California Vehicle Noise
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CAPSSA	Criteria Area Plant Species Survey Area
CARB	California Air Resources Board
CAT	Climate Action Team
CBC	California Building Code
CBSC	California Building Standards Code
CCA	Community Choice Aggregators
CCR	California Code of Regulations
CCAA	California Clear Air Act
CCCC	California Climate Change Center
CD	Consistency Determination
CDC	California Department of Conservation
CDFA	California Department of Food and Agriculture
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CESA	California Endangered Species Act
CFCs	Chlorofluorocarbons
C ₂ F ₆	Hexaflouroethane
CF ₄	Tetraflouromethane
CF ₃ CH ₂ F	HFC-134a
CFR	Code of Federal Regulations
CFS	Cubic Feet per Second
CFGC	California Fish and Game Code
C ₂ H ₆	Ethane
CGC	California Government Code
CH ₄	Methane
CH ₃ CHF ₂	HFC-152a
CHF ₃	HFC-23
CIWMB	California Integrated Waste Management Board
CMP	Congestion Management Program
CNEL	Community Noise Equivalent Level
CNG	Compressed Natural Gas



<u>Acronym</u>	<u>Definition</u>
CNRA	California Natural Resources Agency
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
CO ₂ e	Carbon Dioxide Equivalent
COG	Council of Governments
COHb	carboxyhemoglobin
COP	Conference of the Parties
Corps	U.S. Army Corps of Engineers
CPUC	California Public Utilities Commission
CREC	Controlled Recognized Environmental Conditions
CRHR	California Register of Historical Resources
CRMP	Cultural Resources Management Plan
CTC	California Transportation Commission
CTR	California Toxic Rule
CUPA	Certified Union Program Agency
CWA	Clean Water Act
CWC	California Water Code
dB	Decibel
dBA	A-weighted Decibels
DBESP	Determination of Biologically Equivalent or Preservation
DDT	Dichlorodiphenyltrichloroethane
DEH	Department of Environmental Health
DIF	Development Impact Fee
DOE	Determination of Eligibility
DOF	California Department of Finance
DOSH	Division of Occupational Safety and Health
DPM	Diesel Particulate Matter
DTSC	Department of Toxic Substances Control
DU	Dwelling Unit
DWR	Department of Water Resources
E+P	Existing plus Project Conditions
EDR	Environmental Data Resources
e.g.	for example
EIC	Eastern Information Center
EIR	Environmental Impact Report
EMFAC	Emission Factor Model
EMWD	Eastern Municipal Water District
EO	Executive Order
EPA	Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-To-Know Act



<u>Acronym</u>	<u>Definition</u>
ESA	Environmental Site Assessment
ESA	Endangered Species Act
ESFR	Early Suppression, Fast Response
ESP	electric service providers
et seq.	et sequentia, meaning "and the following"
EV	Electric Vehicle
F	Fahrenheit
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FIRM	Flood Insurance Rate Map
FMMP	Farmland Mapping and Monitoring Program
FTA	Federal Transit Administration
FYI	For Your Information
GCC	Global Climate Change
Gg	Gigagrams
GHG	Greenhouse Gas
GIS	Geographic Information System
GOBiz	Governor's Office of Business and Economic Development
GPA	General Plan Amendment
GPA	General Plan Amendment
GWP	Global Warming Potential
H ₂ O	Water Vapor
HANS	Habitat Evaluation and Acquisition Negotiation Strategy
HCM	Highway Capacity Manual
HCP	Habitat Conservation Plan
HDT	Heavy Duty Trucks
HFCs	Hydrofluorocarbons
HMBEP	Hazardous Materials Business Emergency Plan
HMTA	Hazardous Materials Transportation Act
HMTUSA	Hazardous Materials Transportation Uniform Safety Act
HREC	Historic Recognized Environmental Conditions
HSC	Health and Safety Code
HSWA	Federal Hazardous and Solid Waste Amendments
HWCL	Hazardous Waste Control Law
I	Interstate
I-215	Interstate 215



<u>Acronym</u>	<u>Definition</u>
i.e.	that is
IA	Implementing Agreement
IBank	Infrastructure and Economic Development Bank
In/yr	Inches per Year
IOU	Investor-Owned Utilities
IPCC	Intergovernmental Panel on Climate Change
IRP	Integrated Resource Planning
IRWMP	Integrated Regional Water Management Plan
ISTEA	Intermodal Surface Transportation Efficiency Act of 1991
ISO	Independent System Operator
ITE	Institute of Transportation Engineers
ITP	Incidental Take Permits
IWMA	Integrated Waste Management Act
IWMP	Integrated Waste Management Plan
JPA	Joint Powers Authority
JPR	Joint Project Review
kBTU	kilo-British thermal units
kWh	kilowatt-hour
LBP	Lead based paint
lbs/day	Pounds per Day
LCA	Life-cycle analysis
LCFS	low carbon fuel standard
LDA	Light-Duty-Auto Vehicles
LDT1/2	Light-Duty-Trucks
LEA	Lead Enforcement Agency
LED	light-emitting diode
Leq	equivalent continuous sound level
LI	Light Industrial
LOS	Level of Service
LRA	Local Responsibility Areas
LSA	Lake and Streambed Alteration
LSTs	Localized Significance Thresholds
MACT	Maximum Achievable Control Technology
MATES-II/IV	Multiple Air Toxics Exposure Study in the South Coast Air Basin
MARB/IP	March Air Reserve Base/Inland Port
MBTA	Migratory Bird Treaty Act
MDP	Master Drainage Plan
MDV	Medium-Duty-Vehicles



<u>Acronym</u>	<u>Definition</u>
MEISC	maximally exposed individual school child
MEIR	maximally exposed individual receptor
MEIW	maximally exposed individual worker
MM	Mitigation Measure
MMRP	Mitigation Monitoring and Reporting Program
MMTs	million metric tons
MMTCO _{2e}	million metric tons of carbon dioxide equivalent
MPH	Miles per hour
MPO	Metropolitan Planning Organization
MSHCP	Multiple Species Habitat Conservation Plan
MT	Metric Tons
MTCO _{2e}	Metric Tons of Carbon Dioxide Equivalent
MVU	Moreno Valley Electric Utility
MWD	Metropolitan Water District
n.d.	no date
NAHC	Native American Heritage Commission
NAGPRA	National American Graves Protection and Reparation Act
NAAQS	National Ambient Air Quality Standards
NCCP	Natural Community Conservation Planning
NDC	nationally determined contributions
NEPSSA	Narrow Endemic Plan Species Survey Area
NESHAP	National Emission Standards for Hazardous Air Pollutants
NHMLAC	National History Museum of Los Angeles County
NHPA	National Historic Preservation Act
NHTSA	National Highway Traffic Safety Administration
NIOSH	National Institute for Occupational Safety and Health
NMFS	National Marine Fisheries Service
NO	Nitric Oxide
NO ₂	Nitrogen Dioxide
NO _x	Nitrogen Oxides
N ₂	Nitrogen
N ₂ O	Nitrous Oxide
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NPS	non-point source
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NTR	National Toxic Rule



<u>Acronym</u>	<u>Definition</u>
NVIA	Noise and Vibration Impact Assessment
O ₂	Oxygen
O ₃	Ozone
OEHHA	Office of Environmental Health Hazard Assessment
OPR	Office of Planning and Research
OSHA	Occupational Safety and Health Assessment
PAKO	Primary Animal Keeping Overlay Zone
Pb	Lead
PCBs	Polychlorinated biphenyls
PCEs	Passenger Car Equivalents
PEA	Preliminary Environmental Assessment
PFCs	Perfluorocarbons
p.m.	Post Meridiem (between the hours of noon and midnight)
PM	Particulate Matter
PM _{2.5}	Fine Particulate Matter (2.5 microns or smaller)
PM ₁₀	Fine Particulate Matter (10 microns or smaller)
POUs	Public-Owned Utilities
ppm	parts per million
PRC	Public Resources Code
PV	photovoltaic
PVC	Polymerizing Vinyl Chloride
R2	Residential Max 2 du/ac
RA2	Residential Agriculture, 2 du/ac
RCACO	Riverside County Agricultural Commissioner's Office
RCFCWCD	Riverside County Flood Control and Water Conservation District
RCNM	Roadway Construction Noise Model
RCRA	Resource Conservation and Recovery Act
REC	Recognized environmental Concerns
REMEL	Reference Energy Mean Emission Level
RHSA	Regional Systems of Highways and Arterials
RivTAM	Riverside Transportation Analysis Model
ROGs	Reactive Organic Gasses
ROW	right-of-way
RPS	Renewable Portfolio Standards
RTA	Riverside Transit Agency
RTP	Regional Transportation Plan
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
RTPA	Regional Transportation Planning Agency
RWQCB	Regional Water Quality Control Board



<u>Acronym</u>	<u>Definition</u>
SF/s.f.	square foot or square feet
SANBAG	San Bernardino Associated Governments
SARA	Superfund Amendments and Reauthorization Act
SAWPA	Santa Ana Watershed Project Authority
SB	Senate Bill
SB 32	Statewide for California to reduce GHG emissions
SB 1368	CPUC adopt a GHG emission performance standard
SB 1078	California Renewables Portfolio Standard Program
SB 350	California Senate Bill 350, Clean Energy and Pollution Reduction Act of 2015
SB 375	California Senate Bill 375, Sustainable Communities and Climate Protection Act of 2008
SCAB	South Coast Air Basin
SCAG	Sothern California Association of Governments
SCAQMD	Southern Coast Air Quality Management District
SCCIC	South Central Coastal Information Center
SCEC	Southern California Earthquake Center
SCG	Southern California Geotechnical
SCH	California State Clearinghouse (Office of Planning and Research)
SCRRA	Southern California Regional Rail Authority
SCS	Sustainable Communities Strategy
SF ₆	Sulfur Hexafluoride
SGC	Strategic Growth Council
SHA	Safe Harbor Agreement
SHMA	Seismic Hazards Mapping Act
SHPO	State Historic Preservation Officers
SHRC	State Historical Resources Commission
SIPs	State Implementation Plans
SLPS	Short-Lived Climate Pollutant Strategy
SNUR	Significant New Use Rule
SO ₂	Sulfur Dioxide
SO ₄	Sulfate
SO _x	Sulfur Oxides
SoCalGas	Southern California Gas Company
SR	State Route
SR-60	State Route 60
SRREs	Source Reduction Recycling Elements
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Regional Control Board
TACs	Toxic Air Contaminants
TAZ	Traffic Analysis Zone
TEA-21	Transportation Equity Act for the 21 st Century



<u>Acronym</u>	<u>Definition</u>
TIA	Traffic Impact Analysis
TSCA	Toxic Substance Control Act
TUMF	Transportation Uniform Mitigation Fee
UBC	Uniform Building Code
UCR	University of California Riverside
UNFCCC	United Nations' Framework Convention on Climate Change
U.S.	United States
USCB	United States Census Bureau
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USTs	Underground storage tanks
UWMP	Urban Water Management Plan
VdB	Vibration Decibels
VEC	Vapor Encroachment Concerns
VHFHSZ	Very High Fire Hazard Severity Zone
VMT	Vehicle Miles Traveled
VOCs	Volatile Organic Compounds
WDR	Water discharge report/requirements
WMI	Watershed Management Initiative
WQMP	Water Quality Management Plan
WRCOG	Western Riverside Council of Governments
WRRRA	Water Reuse and Recycle Act
WSA	Water Supply Assessment
WSC	Western Science Center
ZEV	Zero-Emission Vehicles
ZORI	Zones of Required Investigation



S.0 EXECUTIVE SUMMARY

S.1 INTRODUCTION

The California Environmental Quality Act (CEQA) as codified in Public Resources Code Section 21000, *et seq.* requires that before a public agency makes a decision to approve a project that could have one or more adverse effects on the physical environment, the agency must inform itself about the project’s potential environmental impacts, give the public an opportunity to comment on the environmental issues, and take feasible measures to avoid or reduce potential harm to the physical environment.

This Environmental Impact Report (EIR) (California State Clearinghouse (SCH) No. 2020039038), was prepared in accordance with CEQA Guidelines Article 9, Sections 15120-15132 to evaluate the potential environmental impacts associated with planning, constructing, and operating the proposed Moreno Valley Trade Center Project (hereafter, the “Project” or “proposed Project”). This EIR does not recommend approval or denial of the proposed Project; rather, this EIR is a source of factual information regarding potential impacts to the physical environment that may result from the Project’s implementation. The Draft EIR will be available for public review for a minimum period of 45 days. After consideration of public comment, the City of Moreno Valley will consider certifying the Final EIR and adopting required findings.

The City of Moreno Valley’s preliminary analysis determined that implementation of the Project would have the *potential* to result in significant environmental impacts under 14 environmental topic areas. This determination was based on the completion of an Initial Study that represented the City of Moreno Valley’s independent judgment pursuant to CEQA Guidelines Section 15063, and in consideration of public comment received by the City in response to this EIR’s Notice of Preparation (NOP). The Initial Study, NOP, and written comments received by the City in response to the NOP, are attached to this EIR as *Technical Appendix A*. The 14 environmental topic areas that have the potential to be significantly affected by planning, constructing, and/or operating the proposed Project and that are analyzed in detail herein include:

- | | |
|-----------------------------|----------------------------------|
| 1. Aesthetics | 8. Hazards & Hazardous Materials |
| 2. Air Quality | 9. Hydrology & Water Quality |
| 3. Biological Resources | 10. Land Use & Planning |
| 4. Cultural Resources | 11. Noise |
| 5. Energy | 12. Transportation |
| 6. Geology & Soils | 13. Tribal Cultural Resources |
| 7. Greenhouse Gas Emissions | 14. Utilities & Service Systems |

Refer to EIR Section 4.0, *Environmental Analysis*, for a full account and analysis of the subject matters listed above. Subject areas for which the Initial Study concluded that impacts would be clearly less than significant and that do not warrant detailed analysis in this EIR are addressed in EIR Section 5.0, *Other CEQA Considerations*. For each of the aforementioned subject areas, this EIR describes: 1) the physical conditions that existed at the approximate time this EIR’s NOP was published (March 16, 2020); 2) discloses the type and magnitude of potential environmental impacts resulting from Project planning, construction, and operation; and 3) if warranted, recommends feasible mitigation measures that would reduce or avoid significant adverse



environmental impacts that may result from the Project. A summary of the Project's significant environmental impacts and the mitigation measures imposed by the City of Moreno Valley to lessen or avoid these impacts is included in this Executive Summary as Table S-1, *Mitigation Monitoring and Reporting Program*. The City of Moreno Valley applies mitigation measures that it determines 1) are feasible and practical for project applicants to implement, 2) are feasible and practical for the City of Moreno Valley to monitor and enforce, 3) are legal for the City of Moreno Valley to impose, 4) have an essential nexus to the Project's impacts, and 4) would result in a benefit to the physical environment. CEQA does not require the Lead Agency to impose mitigation measures that are duplicative of mandatory regulatory requirements.

S.2 PROJECT OVERVIEW

S.2.1 LOCATION AND SETTING

The Project site is located in the City of Moreno Valley, which is located in western Riverside County, California. The City of Moreno Valley is situated north of the City of Perris, northwest of the City of Hemet, west of the City of Beaumont, east of the City of Riverside, and east of the unincorporated communities of Mead Valley and Woodcrest. The Project site is located approximately 0.4-mile southwest of the Redlands Boulevard on/off-ramp and approximately 0.9-mile southeast of the Moreno Beach Drive on/off-ramp to State Route 60 (SR-60) and approximately 7.3 miles east of Interstate 215 (I-215). The site's location and regional context are illustrated on Figure 3-1, *Regional Map*, in EIR Section 3.0, *Project Description*.

At the local scale, the Project site is located immediately south of Eucalyptus Avenue, immediately west of Redlands Boulevard, immediately north of Encelia Avenue, and immediately east of the Quincy Channel as illustrated on Figure 3-2, *Vicinity Map*, and Figure 3-3, *USGS Topographic Map*.

S.2.2 PROJECT SUMMARY

For purposes of this EIR, the term "Project" refers to the discretionary actions required to implement the proposed Moreno Valley Trade Center project and all of the activities associated with its implementation (including planning, construction, and ongoing operation). The Project would result in the construction and operation of a 1,328,853 square-foot, modern light industrial building that could be occupied by warehouse distribution/logistics or in the alternative e-commerce/fulfillment uses on an approximately 72.5-net-acre property. The Project also includes associated site improvements, including drive aisles, landscaping, utility infrastructure, water quality basins, exterior lighting, walls/fencing, and signage. The principal discretionary actions requested by the Project Applicant to implement the proposed Project include a General Plan Amendment (PEN19-0191), Change of Zone (PEN19-0192), Plot Plan (PEN19-0193), and Tentative Parcel Map (PEN19-0234). Refer to EIR Section 3.0, *Project Description*, for a detailed description of the Project.

S.2.3 PROJECT OBJECTIVES

The fundamental purpose and goal of the Moreno Valley Trade Center Project is to develop a modern light industrial building in the City of Moreno Valley in close proximity to the State highway system, to increase employment opportunities and improve the City's economic competitiveness. This underlying purpose aligns with various aspects of the Southern California Association of Governments' (SCAG's) *2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)* primarily related to accommodating goods



movement industries and balancing job and housing opportunities in local areas to reduce long commutes from home to work. SCAG identifies the Inland Empire as a housing rich area and coastal communities as job rich areas and is striving in their policies to achieve more equal balances locally. The Project would achieve its underlying purpose and goal through the following objectives.

- A. To expand economic development, facilitate job creation, and increase the tax base for the City of Moreno Valley by establishing new industrial development adjacent to established and planned industrial areas.
- B. To attract employment-generating businesses to the City of Moreno Valley to reduce the need for members of the local workforce to commute outside the area for employment, thereby improving the jobs-housing balance in the City.
- C. To develop a Class A speculative light industrial building in Moreno Valley that is designed to meet contemporary industry standards and be economically competitive with similar industrial buildings in the local area and region.
- D. To attract businesses that can expedite the delivery of essential goods to consumers and businesses in Moreno Valley and beyond the City boundary.
- E. To develop a project that has architectural design and operational characteristics that complement other existing and planned buildings in the immediate vicinity and minimize conflicts with other nearby land uses.
- F. To develop a light industrial building in close proximity to designated truck routes and the State highway system to avoid or shorten truck-trip lengths on other roadways.
- G. To develop a property that has access to available infrastructure, including roads and utilities.

S.3 EIR PROCESS

An Initial Study was prepared by the City of Moreno Valley to determine whether any aspect of the Project, either individually or cumulatively, may cause a significant adverse effect on the physical environment (refer to *Technical Appendix A* for a copy of the Initial Study). For this Project, the Initial Study indicated that this EIR should focus on 14 environmental subject areas listed above in Subsection S.1. After completion of the Initial Study, the City published a NOP and filed a copy with the California Office of Planning and Research State Clearinghouse to inform the general public, trustee and responsible agencies and other interested parties that an EIR would be prepared for the Project. The Initial Study and NOP were distributed for a 30-day public review period, which began on March 16, 2020. The City of Moreno Valley received written comments on the scope of the EIR during those 30 days, which were considered by the City during the preparation of this EIR. The City also held an EIR scoping meeting open to the interested public agencies and members of the general public on April 8, 2020.

This EIR will be circulated for review and comment by the public and other interested parties, agencies, and organizations for a 45-day review period. During the 45-day public review period, public notices announcing availability of the Draft EIR will be mailed to interested parties, an advertisement will be published in the Press Enterprise (a newspaper of general circulation in the City of Moreno Valley), and copies of the Draft EIR and its Technical Appendices will be available for review at the locations indicated in the public notices.



After the close of the 45-day Draft EIR public comment period, the City will prepare and publish responses to written comments it received on the environmental effects of the Project. Thereafter, the Final EIR will be considered for certification by the Moreno Valley City Council. Certification of the Final EIR would be accompanied by the adoption of written findings and a “Statement of Overriding Considerations” for any significant unavoidable environmental impacts identified in the Final EIR. In addition, pursuant to Public Resources Code Section 21081.6, because the Project will include mitigation measures, the City, as Lead Agency, must adopt a Mitigation, Monitoring, and Reporting Program (MMRP), which describes the process to ensure implementation of the mitigation measures identified in the Final EIR. The MMRP will ensure CEQA compliance during Project construction and operation.

S.4 AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

CEQA Guidelines Section 15123(b)(2) requires the Lead Agency (City of Moreno Valley) to identify any known issues of controversy in the Executive Summary. Although the City has received letters of opposition to the Project, after consideration of all comments received in response to the NOP, the City has not identified any environmental issues of controversy associated with the Project that were not already identified in the Initial Study for the Project. Notwithstanding, the Lead Agency has identified several issues of local concern including, but not limited to, potential impacts to air quality, biological resources, greenhouse gas emissions, noise, and transportation – and these issues are all addressed in this EIR.

In light of the foregoing, this EIR addresses all environmental issues that are known by the City, that are identified in the Project’s Initial Study, and that were identified in the comment letters that the City received in response to the NOP (refer to *Technical Appendix A*) and the EIR scoping meeting. Items raised in written comment to the NOP are summarized in Table 1-1, *Summary of NOP and Scoping Meeting Comments*, in Section 1.0 of this EIR.

S.5 ALTERNATIVES TO THE PROPOSED PROJECT

In compliance with CEQA Guidelines Section 15126.6, an EIR must describe a range of reasonable alternatives to the Project. A brief description of alternatives considered in this EIR is provided below; however, a detailed description of each alternative evaluated in this EIR, as well as an analysis of the potential environmental impacts associated with each alternative, is provided in EIR Section 6.0, *Alternatives*. Also described in Section 6.0 is a list of alternatives that were considered but rejected from further analysis.

S.5.1 NO DEVELOPMENT ALTERNATIVE

The No Development Alternative considers no development on the Project site beyond what occurs on the site under existing conditions. Under this Alternative, the approximately 8.5-acre commercial plant nursery (Adam Hall’s Plant Nursery) with associated structures (i.e., an office building and shade and storage structures), three residential buildings with associated accessory buildings and uses would remain on the southeast corner of the Project site for the foreseeable future. The remaining portions of the Project site would also remain undeveloped and would be subject to routine maintenance (i.e., discing) for weed abatement. This Alternative was used to compare the environmental effects of the proposed Project with an alternative that would leave the property in its existing state.



Implementation of the No Development Alternative would result in no physical environmental impacts to the Project site beyond those that have historically occurred on the property. Although all significant effects of the Project would be avoided by the selection of this Alternative, this No Development Alternative would fail to meet any of the Project’s objectives.

S.5.2 NO PROJECT ALTERNATIVE

The No Project Alternative considers redevelopment of the Project site in accordance with the site’s existing land use designation, “Residential: Max 2 du/ac (R2)” and the site’s existing zoning designation, “Residential Agriculture, 2 du/ac (RA2),” which allows up to 2.0 dwelling units per net acre. Under this alternative, the Project site would be developed as a master-planned residential community with 145 single-family dwelling units on minimum 20,000 s.f. lots. The extent of physical ground disturbance is expected to be the same as would occur under the proposed Project. This Alternative was used to compare the environmental effects of the Project against a development proposal that conforms to the land use standards and development regulations prescribed by the City of Moreno Valley General Plan and Municipal Code under the Project site’s existing land use and zoning designations.

The No Project Alternative would reduce and likely avoid the Project’s significant and unavoidable impacts to air quality. The No Project Alternative would reduce the Project’s total GHG emissions (but may continue to result in a significant and unavoidable impact when evaluated against the SCAQMD significance threshold for residential uses). The No Project Alternative would reduce the Project’s less-than-significant impacts to aesthetics, energy, hazards and hazardous materials, noise, and utilities and service systems. However, all other impacts from the No Project Alternative would be similar to the Project.

S.5.3 REDUCED BUILDING AREA ALTERNATIVE

The Reduced Building Area Alternative considers a proposal where the Project site would be redeveloped with two separate uses: a light industrial building and an outdoor industrial storage area. Under this Alternative, a 965,000 s.f. light industrial building would be developed on the eastern portion of the Project site and a 20-acre outdoor storage area for trailers and/or truck-tractors would be developed on the western portion of the Project site. This Alternative was used to evaluate a scenario that would reduce the total building area on the Project site relative to the Project but still allow productive industrial use of the entire Project site.

The Reduced Building Area Alternative would reduce – but not avoid – the Project’s significant and unavoidable air quality and GHG emission impacts. The Reduced Building Alternative would reduce the Project’s less-than-significant impacts to energy and utilities and service systems; but, all other impacts from the Reduced Building Alternative would be similar to the Project.

S.6 SUMMARY OF IMPACTS, MITIGATION MEASURES, AND CONCLUSIONS

S.6.1 EFFECTS FOUND NOT TO BE SIGNIFICANT

The scope of detailed analysis in this EIR considers and addresses the 14 subject areas identified in the Initial Study prepared under the supervision of the City of Moreno Valley pursuant to CEQA Guidelines Section 15063 and Public Resources Code Section 21002(e), as well as the public comments received in



response to the NOP and the EIR scoping meeting. The Initial Study, NOP, and public comments received in response to the NOP and scoping meeting, are attached to this EIR as *Technical Appendix A*. Subject areas for which the City concluded that impacts clearly would be less than significant and that do not warrant detailed analysis in this EIR include: agriculture and forestry, mineral resources, population and housing, public services, recreation, and wildfire. This EIR addresses these six (6) topics in EIR Subsection 5.0, *Other CEQA Considerations*.

S.6.2 IMPACTS OF THE PROPOSED PROJECT

Table S-1 provides a summary of the Project's environmental impacts, as required by CEQA Guidelines Section 15123(a). Also presented are the mitigation measures recommended by the Lead Agency to further avoid adverse environmental impacts or to reduce their level of significance. After the application of all feasible mitigation measures, the Project would result in five (5) significant and unavoidable environmental effects, as summarized below.

- Aesthetics: Implementation of the Project would mostly or completely block views of Reche Canyon and the Badlands (and the San Bernardino Mountains beyond) from the segment of Encelia Avenue that abuts the Project site on the south (west of Shubert Street). Also, implementation of the Project would mostly or completely block scenic views of Mount Russell and its foothills from the segment of Eucalyptus Avenue that abuts the Project site. This would be a significant and unavoidable direct impact.
- Air Quality (Air Quality Management Plan Conflict): The Project would emit air pollutants (NO_x) that would contribute to a delay in the attainment of federal and State ozone standards in the SCAB. Because the Project requires a General Plan Amendment, it also would exceed the growth projections contained in SCAQMD's 2016 AQMP. As such, the Project would conflict with and could obstruct implementation of the AQMP. Project impacts due to a conflict with the SCAQMD 2016 AQMP would be significant and unavoidable on both a direct and cumulatively-considerable basis.
- Air Quality (Criteria Pollutant Emissions): After the application of Project design features, mandatory regulatory requirements, and feasible mitigation measures, Project-related NO_x emissions during long-term operation of the Project would remain above the applicable SCAQMD regional thresholds. Accordingly, Project-related emissions would not meet SCAQMD air quality standards and contribute to the non-attainment of ozone standards in the SCAB. As such, Project operational-related impacts due to NO_x emissions would be significant and unavoidable on a direct and cumulative basis.
- Greenhouse Gas Emissions (GHG Emissions Generation): Project-related GHG emissions would exceed the applicable SCAQMD significance threshold for GHG emissions and would result in a cumulatively-considerable impact to the environment.



Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
4.1 Aesthetics					
Summary of Impacts					
<u>Threshold a: Significant Direct Impact.</u> Implementation of the proposed Project would mostly or completely block existing views of Reche Canyon and the Foothills and the Badlands (and the San Bernardino Mountains beyond) from the Encelia Avenue segment abutting the Project site and located west of Shubert Street. In addition, implementation of the Project would mostly or completely obstruct views of Mount Russell and its foothills from the Eucalyptus Avenue segment that abuts the Project site. The loss of these existing public views would be significant.	No mitigation feasible mitigation is available.	N/A	N/A	N/A	Significant and Unavoidable Impact
<u>Threshold b: No Impact.</u> The Project site is not located within the viewshed of a scenic highway and does not contain any scenic resources visible from a scenic highway.	No mitigation is required.	N/A	N/A	N/A	No Impact
<u>Threshold c: Less-than-Significant Impact.</u> Although the Project would change the visual character of the site from mainly undeveloped with a plant nursery and associated structures to light industrial use, the Project’s surrounding area is transitioning from rural to urbanized land uses. Furthermore, the Project proposes a number of site design, architectural, and landscaping elements consistent with the Light Industrial District (LI) requirements of the City’s Zoning Ordinance.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
<u>Threshold d: Less-than-Significant Impact.</u> Project-related development would not create substantial light or glare. Compliance with Moreno Valley Municipal Code requirements for lighting would ensure less-than-significant impacts associated with light and glare.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact



Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
4.2 Air Quality					
Summary of Impacts					
<p><u>Threshold a: Significant Direct and Cumulatively-Considerable Impact.</u> Under warehouse distribution/logistics and e-commerce/fulfillment options, the Project would exceed the growth projections contained in SCAQMD's 2016 AQMP and, also, would emit air pollutants that would contribute to a delay in the attainment of federal and State ozone standards in the SCAB. As such, the Project would conflict with and could obstruct implementation of the AQMP.</p>	<p>MM 4.2-1 The Project shall comply with the provisions of South Coast Air Quality Management District Rule 403, "Fugitive Dust." Rule 403 requires implementation of best available dust control measures during construction activities that generate fugitive dust, such as earth moving, grading, and equipment travel on unpaved roads. Rule 403 also requires activities defined as "large operations" to notify the SCAQMD by submitting specific forms. The following notes shall be listed on the Project's grading plans, to be confirmed by the City of Moreno Valley prior to grading permit issuance. Project construction contractors shall be required by their contracts to ensure compliance with the notes, submit any required "large operations" forms to the SCAQMD, and permit periodic inspection of the construction site by City of Moreno Valley staff or its designee to confirm compliance.</p> <p>a) During grading and ground-disturbing construction activities, the construction contractor shall ensure that all unpaved roads, active soil stockpiles, and areas undergoing active ground disturbance within the Project site are watered at least three (3) times daily during dry weather. Watering, with complete coverage of disturbed areas by water truck, sprinkler system, or other comparable means, shall occur in the mid-morning, afternoon, and after work is done for the day. The contractor or builder shall designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust off-site.</p> <p>b) Temporary signs shall be installed on the construction site along all unpaved roads indicating a maximum speed limit of 15 miles per</p>	<p>Project Applicant; Project Construction Contractors</p>	<p>City of Moreno Valley Building and Safety Division, and Land Development Division</p>	<p>Prior to grading permit issuance and on-going during construction</p>	<p>Significant and Unavoidable Direct and Cumulatively-Considerable Impact</p>



Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	<p>hour (MPH). The signs shall be installed before construction activities commence and remain in place for the duration of construction activities that include vehicle activities on unpaved roads.</p> <p>c) Gravel pads must be installed at all access points to prevent tracking of mud onto public roads.</p> <p>d) Install and maintain trackout control devices in effective condition at all access points where paved and unpaved access or travel routes intersect (e.g., install wheel shakers, wheel washers, limit site access).</p> <p>e) When materials are transported off-site, all material shall be covered or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained.</p> <p>f) All street frontages adjacent to the construction site shall be swept at least once a day using SCAQMD Rule 1186 certified street sweepers utilizing water trucks (reclaimed water, if available) if visible soil materials are carried to adjacent streets.</p> <p>g) Post a publicly visible sign with the telephone number and person to contact regarding dust complaints. This person shall respond and initiate corrective action to legitimate complaints within 24 hours.</p> <p>h) Any vegetative cover to be utilized onsite shall be planted as soon as possible to reduce the disturbed area subject to wind erosion. Irrigation systems required for these plants shall be installed as soon as possible to maintain good ground cover and to minimize wind erosion of the soil.</p> <p>i) Any on-site stock piles of debris, dirt, or other dusty material shall be covered or watered as</p>				



Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	<p>necessary to minimize fugitive dust pursuant to SCAQMD Rule 403.</p> <p>j) A high wind response plan shall be formulated and implemented for enhanced dust control if winds are forecast to exceed 25 mph in any upcoming 24-hour period.</p> <p>MM 4.2-2 The Project shall comply with the provisions of South Coast Air Quality Management District Rule 1186 “PM₁₀ Emissions from Paved and Unpaved Roads and Livestock Operations” and Rule 1186.1, “Less-Polluting Street Sweepers” by complying with the following requirements. To ensure and enforce compliance with these requirements, prior to grading and building permit issuance, the City of Moreno Valley shall verify that the following notes are included on the grading and building plans and within the construction management plan. Project construction contractors shall be required to ensure compliance with the notes and permit periodic inspection of the construction site by City of Moreno Valley staff or its designee to confirm compliance.</p> <p>a) If visible dirt or accumulated dust is carried onto paved roads during construction, the contractor shall remove such dirt and dust at the end of each work day by street cleaning.</p> <p>b) Street sweepers shall be certified by the South Coast Air Quality Management District as meeting the Rule 1186 sweeper certification procedures and requirements for PM₁₀-efficient sweepers. All street sweepers having a gross vehicle weight of 14,000 pounds or more shall be powered with alternative (non-diesel) fuel or otherwise comply with South Coast Air Quality Management District Rule 1186.1.</p> <p>MM 4.2-3 Prior to building permit issuance, the City of Moreno Valley shall verify that a note is provided on all building plans specifying that compliance with</p>	<p>Project Applicant; Project Construction Contractors</p> <p>Project Applicant; Project Construction Contractors</p>	<p>City of Moreno Valley Building and Safety Division and Land Development Division</p> <p>City of Moreno Valley Building and Safety Division and</p>	<p>Prior to grading and building permit issuance and on-going during construction</p> <p>Prior to building permit issuance</p>	



Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	<p>SCAQMD Rule 1113 is mandatory during application of all architectural coatings. Project contractors shall be required to comply with the note and maintain written records of such compliance that can be inspected by the City of Moreno Valley upon request. This note also shall indicate that only “super-compliant” low VOC paint products (no more than 10 gram/liter of VOC) shall be used. All other architectural coatings shall comply with the VOC limits prescribed by SCAQMD Rule 1113.</p> <p>MM 4.2-4 Project construction contractors shall assure that all construction equipment complies with all applicable California Air Resources Board (CARB) air quality regulations. Also, Project construction contractors shall tune and maintain all construction equipment in accordance with the equipment manufacturer’s recommended maintenance schedule and specifications. Maintenance records for all pieces of equipment shall be kept on-site for the duration of construction activities and shall be made available for periodic inspection by City of Moreno Valley staff or their designee.</p> <p>MM 4.2-5 Legible, durable, weather-proof signs shall be placed at truck access gates, loading docks, and truck parking areas that identify applicable California Air Resources Board (CARB) anti-idling regulations. At a minimum, each sign shall include: 1) instructions for truck drivers to shut off engines when not in use for more than three (3) minutes; and 2) instructions for drivers of diesel trucks to restrict idling to no more than three (3) minutes once the vehicle is stopped, the transmission is set to “neutral” or “park,” and the parking brake is engaged. Prior to the issuance of an occupancy permit, the City of Moreno Valley shall conduct a site inspection to ensure that the signs are in place.</p>	<p>Project Construction Contractors</p> <p>Project Applicant</p>	<p>Land Development Division</p> <p>City of Moreno Valley Building and Safety Division and Land Development Division</p> <p>City of Moreno Valley Building and Safety Division</p>	<p>Prior to the issuance of a grading permit and on-going during construction</p> <p>Prior to the issuance of an occupancy permit</p>	



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THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	<p>permanent signage which informs future occupants/owners of the existence of this infrastructure;</p> <p>e) The building’s electrical room shall be sufficiently sized to hold additional panels that may be needed in the future to supply power for the future installation of EV truck charging stations on the site. Conduit should be installed from the electrical room to tractor trailer parking spaces in a logical location(s) on the site determined by the Project Applicant during construction document plan check, for the purpose of accommodating the future installation of EV truck charging stations at such time this technology becomes commercially available and the building is being served by trucks with electric-powered engines.</p> <p>f) The building’s electrical room shall be sufficiently sized to hold additional panels that may be needed in the future to supply power to trailers with transport refrigeration units (TRUs) during the loading/unloading of refrigerated goods. Conduit should be installed from the electrical room to the loading docks determined by the Project Applicant during construction document plan check as the logical location(s) to receive trailers with TRUs. Loading docks that may receive trailers with TRUs shall only be located on the north side of the building.</p> <p>g) Outdoor electrical outlets are provided in reasonable locations to maximize the opportunities to use electric-powered landscape maintenance equipment.</p> <p>h) Use of light-colored paving materials in the passenger vehicle parking areas, drive aisles, and/or truck court;</p>				



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THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
<u>Threshold c: Less-than-Significant Impact.</u> Implementation of the Project for either warehouse distribution/logistics or e-commerce/fulfillment uses would not: 1) exceed applicable SCAQMD localized criteria pollution emissions thresholds during construction and operation; 2) expose sensitive receptors to toxic air contaminants (i.e., DPM) that exceed the applicable SCAQMD carcinogenic and non-carcinogenic risk thresholds; nor 3) cause or contribute to the formation of a CO "hot spot."	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
<u>Threshold d: Less-than-Significant Impact.</u> The Project would not produce air emissions that would lead to unusual or substantial construction-related or operational-related odors under the warehouse distribution/logistics or e-commerce/fulfillment options.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
4.3 Biological Resources					
Summary of Impacts					
<u>Threshold a: Significant Direct and Cumulatively-Considerable Impact.</u> The Project site contains suitable foraging and nesting habitat for the burrowing owl. In the event the burrowing owl is present on the Project site at the time construction commences, implementation of the Project has the potential to take burrowing owl individuals.	<p>MM 4.3-1 Within 30 days prior to grading, a qualified biologist shall conduct a survey of suitable habitat on site and make a determination regarding the presence or absence of the burrowing owl. The determination shall be documented in a report and shall be submitted, reviewed, and accepted by the City of Moreno Valley prior to the issuance of a grading permit and subject to the following provisions:</p> <ul style="list-style-type: none"> a) In the event that the pre-construction survey identifies no burrowing owls on the property a grading permit may be issued without restriction. b) In the event that the pre-construction survey identifies the presence of at least one individual but less than three (3) mating pairs of burrowing owl, then prior to the issuance of a grading permit and prior to the commencement of ground-disturbing activities on the property, the qualified 	Project Biologist	City of Moreno Valley Planning Division and Building and Safety Division	Within 30 days prior to grading	Less-than-Significant Impact after Mitigation



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THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	<p>biologist shall passively or actively relocate any burrowing owls. Passive relocation, including the required use of one-way doors to exclude owls from the site and the collapsing of burrows, will occur if the biologist determines that the proximity and availability of alternate habitat is suitable for successful passive relocation. Passive relocation shall follow CDFW relocation protocol and shall only occur between September 15 and February 1. If proximate alternate habitat is not present as determined by the biologist, active relocation shall follow CDFW relocation protocol. The biologist shall confirm in writing that the species has fledged the site or been relocated prior to the issuance of a grading permit.</p> <p>c) In the event that the pre-construction survey identifies the presence of three (3) or more mating pairs of burrowing owl, the requirements of MSCHP Species-Specific Conservation Objectives 5 for the burrowing owl shall be followed. Objective 5 states that if the site (including adjacent areas) supports three (3) or more pairs of burrowing owls and supports greater than 35 acres of suitable habitat, at least 90 percent of the area with long-term conservation value and burrowing owl pairs will be conserved onsite until it is demonstrated that Objectives 1-4 have been met. A grading permit shall be issued, either:</p> <p>i. Upon approval and implementation of a property-specific Determination of Biologically Superior Preservation (DBESP) report for the burrowing owl by the CDFW; or</p> <p>ii. A determination by the biologist that the site is part of an area supporting less than 35 acres of suitable Habitat, and upon passive or active relocation of the species following accepted CDFW protocols. Passive relocation, including</p>				



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THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	the required use of one-way doors to exclude owls from the site and the collapsing of burrows, will occur if the biologist determines that the proximity and availability of alternate habitat is suitable for successful passive relocation. Passive relocation shall follow CDFW relocation protocol and shall only occur between September 15 and February 1. If proximate alternate habitat is not present as determined by the biologist, active relocation shall follow CDFW relocation protocol. The biologist shall confirm in writing that the species has fledged the site or been relocated prior to the issuance of a grading permit.				
<u>Threshold b: Significant Direct and Cumulatively-Considerable Impact.</u> The Project would permanently impact 0.57-acre of sensitive habitat as defined by CDFW.	<p>MM 4.3-2 Prior to the issuance of grading permits, the Project Applicant shall obtain a Section 1602 Streambed Alteration Agreement from CDFW and a Section 13260 Waste Discharge Order from the RWQCB. In addition, the Project Applicant shall purchase 0.57-acre of re-establishment credits (a 1:1 mitigation-to-impact ratio) and 0.57-acre of rehabilitation credits (a 1:1 mitigation-to-impact ratio) from the Riverpark Mitigation Bank to compensate for Project impacts to sensitive habitat identified by CDFW.</p> <p>In the event that compensatory mitigation credits are not available from the Riverpark Mitigation Bank at the time of grading permit issuance, the Project Applicant shall instead purchase riparian habitat rehabilitation credits from the Santa Ana River Watershed In-Lieu Fee Program (SARW-ILFP) at a 2:1 mitigation-to-impact ratio (1.14 acres). In such an event, the Project's DBESP report (<i>Technical Appendix C3</i>) shall be amended to note that the SARW-ILFP would be used as the alternative mitigation program for the Project and the amended DBESP shall be provided to the City of Moreno Valley, the USFWS, and CDFW.</p>	Project Applicant	City of Moreno Valley Planning Division and Building and Safety Division	Prior to the issuance of grading permits	Less-than-Significant Impact after Mitigation
<u>Threshold c: No Impact.</u> The Project would not have a substantial adverse effect on State or	No mitigation is required.	N/A	N/A	N/A	No Impact



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THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
<p>federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means.</p>					
<p><u>Threshold d: Significant Direct and Cumulatively-Considerable Impact.</u> There is no potential for the Project to interfere with the movement of fish or impede the use of a native wildlife nursery site. However, the Project has the potential to impact nesting migratory birds protected by the MBTA and CFGC, should habitat removal occur during the nesting season and should nesting birds be present.</p>	<p>MM 4.3-3 Vegetation clearing and ground disturbance shall be prohibited during the migratory bird nesting season (January 31 through September 1), unless a migratory bird nesting survey is completed in accordance with the following requirements:</p> <ul style="list-style-type: none"> a) A nesting bird survey shall be conducted on the Project site and within suitable habitat located within a 250-foot radius of the Project site by a qualified biologist within three (3) days prior to initiating vegetation clearing or ground disturbance. b) If the survey identifies the presence of active nests, then the nests shall not be disturbed unless the qualified biologist verifies through non-invasive methods that either (i) the adult birds have not begun egg-laying and incubation; or (ii) the juveniles from the occupied nests are capable of independent survival. c) If the biologist is not able to verify any of the conditions from sub-item “b,” above, then no disturbance shall occur within a buffer zone specified by the qualified biologist for each nest or nesting site. The buffer zone shall be species-appropriate (no less than 100-foot radius around the nest for non-raptors and no more than a 500-foot radius around the nest for raptors) and shall be sufficient to protect the nest from direct and indirect impacts from construction activities, The size and location of buffer zones, if required, shall be based on consultation with the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service and shall be subject to review and approval by the City of Moreno 	<p>Project Biologist</p>	<p>City of Moreno Valley Planning Division and Building and Safety Division</p>	<p>Within three (3) days prior to initiating vegetation clearing or ground disturbance</p>	<p>Less-than-Significant Impact after Mitigation</p>



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THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	Valley. The nests and buffer zones shall be field checked weekly by a qualified biological monitor. The approved buffer zone shall be marked in the field with construction fencing, within which no vegetation clearing or ground disturbance shall commence until the qualified biologist with City concurrence verify that the nests are no longer occupied and/or juvenile birds can survive independently from the nests.				
<u>Threshold e: Less-than-Significant Impact.</u> The Project would not conflict with any local policies or ordinances protecting biological resources.	No mitigation is required	N/A	N/A	N/A	Less-than-Significant Impact
<u>Threshold f: Significant Direct and Cumulatively-Considerable Impact.</u> The Project site is subject to the Western Riverside County MSHCP and its survey requirements for the western burrowing owl. Although the Project is compliant with all MSHCP provisions and although burrowing owl is absent from the Project site under existing conditions, the Project site contains habitat suitable for the species. If the species migrates onto the Project site is present on the property at the time a grading permit is issued, impacts would be significant. The Project also would impact approximately 0.57-acre of MSHCP riverine area, which would be significant.	Refer to MM 4.3-1 through MM 4.3-3, above.				Less-than-Significant Impact after Mitigation
4.4 Cultural Resources					
Summary of Impacts					
<u>Threshold a: No Impact.</u> No historic resources, as defined by CEQA Guidelines Section 15064.5, are present on the Project site; therefore, no historic resources could be altered or destroyed by construction or operation of the Project.	N/A	N/A	N/A	N/A	No Impact
<u>Threshold b: Significant Direct and Cumulatively-Considerable Impact.</u> No known archaeological resources are present on the	MM 4.4-1 Prior to the issuance of a grading permit, the Developer shall retain a professional archaeologist, who meets the U.S. Secretary of the Interior Standards	Project Developer; Project Archaeologist	City of Moreno Valley Planning and Division	Prior to the issuance of a grading permit	Less-than-Significant Impact after Mitigation



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THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
<p>Project site and the likelihood of uncovering buried prehistoric cultural resources on the Project site is low due to the magnitude of historic ground disturbance on the Project site. Nonetheless, the potential exists for Project-related construction activities to result in a direct and cumulatively-considerable impact to significant subsurface prehistoric archaeological resources should such resources to be discovered during Project-related construction activities.</p>	<p>(SOI), to conduct monitoring of all mass grading and trenching activities. The Project Archaeologist shall have the authority to temporarily redirect earthmoving activities in the event that suspected archaeological resources are unearthed during Project construction. The Project Archaeologist, in consultation with the Consulting Tribe(s) including Agua Caliente Band of Cahuilla Indians, Morongo Band of Mission Indians, Pechanga Band of Luiseño Indians, San Manuel Band of Mission Indians, and Soboba Band of Luiseño Indians, the contractor, and the City, shall develop an Archeological Monitoring Plan to address the details, timing and responsibility of all archaeological and cultural activities that will occur on the project site. A consulting tribe is defined as a tribe that initiated the AB52 tribal consultation process for the Project, has not opted out of the AB52 consultation process, and has completed AB52 consultation with the City as provided for in Cal Pub Res Code Section 21080.3.2(b)(1) of AB52. Details in the Plan shall include:</p> <ul style="list-style-type: none"> a) Project grading and development scheduling; b) The development of a rotating schedule in coordination with the Developer and the Project Archeologist for designated Native American Tribal Monitors from the consulting tribes during grading, excavation and ground disturbing activities on the site: including the scheduling, safety requirements, duties, scope of work; c) The Project archeologist and the Consulting Tribes(s) shall attend the pre-grading meeting with the City, the construction manager and any contractors and will conduct a mandatory Cultural Resources Worker Sensitivity Training to those in attendance. The Training will include a brief review of the cultural sensitivity of the Project and the surrounding area; what resources could potentially be identified during earthmoving 		<p>Building and Safety Division</p>		



Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	<p>activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated; and any other appropriate protocols. All new construction personnel that will conduct earthwork or grading activities that begin work on the Project following the initial Training must take the Cultural Sensitivity Training prior to beginning work and the Project archaeologist and Consulting Tribe(s) shall make themselves available to provide the training on an as-needed basis;</p> <p>d) If the Native American Tribal Representatives suspect that an archaeological resource may have been unearthed, the Project Archaeologist or the Tribal Representatives shall immediately redirect grading operations in a 100-foot radius around the find to allow identification and evaluation of the suspected resource. In consultation with the Native American Tribal Representatives, the Project Archaeologist shall evaluate the suspected resource and make a determination of significance pursuant to California Public Resources Code Section 21083.2.</p> <p>e) The protocols and stipulations that the contractor, City, Consulting Tribe (s) and Project archaeologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resources evaluation.</p>				



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THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	<p>MM 4.4-2 The Developer shall provide a minimum of 30 days advance notice to the tribes of all mass grading and trenching activities.</p> <p>MM 4.4-3 In the event that Native American cultural resources are discovered during the course of grading (inadvertent discoveries), the following procedures shall be carried out for final disposition of the discoveries:</p> <p>a) One or more of the following treatments, in order of preference, shall be employed with the tribes. Evidence of such shall be provided to the City of Moreno Valley Planning Division:</p> <p>i. Preservation-In-Place of the cultural resources, if feasible. Preservation in place means avoiding the resources, leaving them in the place they were found with no development affecting the integrity of the resources.</p> <p>ii. Onsite reburial of the discovered items as detailed in the treatment plan required pursuant to Mitigation Measure 4.4-1. This shall include measures and provisions to protect the future reburial area from any future impacts in perpetuity. Reburial shall not occur until all legally required cataloging and basic recordation have been completed. No recordation of sacred items is permitted without the written consent of all Consulting Native American Tribal Governments as defined in Mitigation Measure 4.4-1. The location for the future reburial area shall be identified on a confidential exhibit on file with the City, and concurred to by the Consulting Native American Tribal</p>	<p>Project Developer; Project Archaeologist</p> <p>Project Developer; Project Archaeologist</p>	<p>City of Moreno Valley Planning Division and Building and Safety Division</p> <p>City of Moreno Valley Planning Division and Building and Safety Division</p>	<p>Prior to the issuance of a grading permit</p> <p>In the event that Native American cultural resources are discovered during the course of grading (inadvertent discoveries)</p>	



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THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
compliance with State law would ensure that human remains, if encountered, are appropriately treated and would preclude the potential for significant impacts to human remains.	given a reasonable opportunity to identify the “most likely descendant”. The “most likely descendant” shall then make recommendations, and engage in consultations concerning the treatment of the remains (California Public Resources Code 5097.98).				
4.5 Energy					
Summary of Impacts					
<u>Threshold a: Less-than-Significant Impact.</u> The amount of energy and fuel consumed by construction and operation of the Project would not be inefficient, wasteful, or unnecessary. Furthermore, the Project would not cause or result in the need for additional energy facilities or energy delivery systems.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
<u>Threshold b: Less-than-Significant Impact.</u> The Project would not cause or result in the need for additional energy production or transmission facilities. The Project would not conflict with or obstruct the achievement of energy conservation goals within the State of California identified in State and local plans for renewable energy and energy efficiency.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
4.6 Geology and Soils					
Summary of Impacts					
<u>Threshold a: Less-than-Significant Impact.</u> Implementation of the Project would not expose people or structures to substantial direct or indirect adverse effects related to liquefaction or fault rupture. The Project site is subject to seismic ground shaking associated with earthquakes; however, mandatory compliance with local and State regulatory requirements and building codes would ensure that the Project minimizes potential hazards related to seismic ground shaking.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact



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THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
<u>Threshold b: Less-than-Significant Impact.</u> Implementation of the Project would not result in substantial soil erosion or loss of topsoil. The Project Applicant would be required to obtain a National Pollutant Discharge Elimination System (NPDES) permit for construction activities and adhere to a Storm Water Pollution Prevention Plan (SWPPP), and prepare an erosion control plan to minimize water and wind erosion. Following completion of development, the Project's owner or operator would be required to implement a Water Quality Management Plan (WQMP) during operation, which would preclude substantial erosion impacts.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
<u>Threshold c: Less-than-Significant Impact.</u> There is no potential for the Project's construction or operation to cause, or be impacted by, on- or off-site landslides or lateral spreading. Potential hazards associated with unstable soils would be precluded through mandatory adherence to the recommendations contained in the site-specific geotechnical report during Project construction.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
<u>Threshold d: No Impact.</u> The Project site contains soils with no susceptibility to expansion; therefore, the Project would not create substantial direct or indirect risks to life or property associated with the presence of expansive soils.	No mitigation is required.	N/A	N/A	N/A	No Impact
<u>Threshold e: No Impact.</u> No septic tanks or alternative wastewater disposal systems are proposed to be installed on the Project site.	No mitigation is required.	N/A	N/A	N/A	No Impact
<u>Threshold f: Significant Direct and Cumulatively-Considerable Impact.</u> The Project would not impact any known paleontological resource or unique geological feature. However, the Project site contains Pleistocene older alluvium soils with a high	MM 4.6-1 Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Moreno Valley that a qualified paleontologist has been retained by the Project Applicant to conduct monitoring of excavation activities and has the authority to halt and redirect earthmoving activities in	Project Applicant; Project Paleontologist	City of Moreno Valley Planning Division and Building and Safety Division	Prior to the issuance of a grading permit	Less-than-Significant Impact after Mitigation



Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
sensitivity for paleontological resources. Accordingly, construction activities on the Project site have the potential to unearth and adversely impact paleontological resource that may be buried beneath the ground surface.	<p>the event that suspected paleontological resources are unearthed.</p> <p>MM 4.6-2 The paleontological monitor shall conduct full-time monitoring during grading and excavation operations in undisturbed, Pleistocene older alluvium soils at depths 10 or more feet below the existing ground surface and shall be equipped to salvage fossils if they are unearthed to avoid construction delays and to remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates. The paleontological monitor shall be empowered to temporarily halt or divert equipment to allow of removal of abundant and large specimens in a timely manner. Monitoring may be reduced if the potentially fossiliferous units are not present in the subsurface, or if present, are determined upon exposure and examination by paleontological personnel to have a low potential to contain or yield fossil resources.</p> <p>MM 4.6-3 Recovered specimens shall be properly prepared to a point of identification and permanent preservation, including screen washing sediments to recover small invertebrates and vertebrates, if necessary. Identification and curation of specimens into a professional, accredited public museum repository with a commitment to archival conservation and permanent retrievable storage, such as the Western Science Museum in Hemet, California, shall be required for discoveries of significance as determined by the paleontological monitor.</p>	<p>Project Applicant; Project Paleontologist</p> <p>Project Applicant; Project Paleontologist</p>	<p>City of Moreno Valley Planning Division and Building and Safety Division</p> <p>City of Moreno Valley Planning Division</p>	<p>During monitoring activities</p> <p>If a significant paleontological resource is discovered on the project site</p>	
	<p>MM 4.6-4 A final monitoring and mitigation report of findings and significance shall be prepared, including lists of all fossils recovered, if any, and necessary maps and graphics to accurately record the original location of the specimens. The report shall be</p>	<p>Project Applicant; Project Paleontologist</p>	<p>City of Moreno Valley Planning Division and Building and Safety Division</p>	<p>Prior to final building inspection</p>	



Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	submitted to the City of Moreno Valley prior to final building inspection.				
4.7 Greenhouse Gas Emissions					
Summary of Impacts					
<u>Threshold a: Significant Cumulatively-Considerable Impact.</u> Operation of the Project is calculated to generate GHG emissions that exceed the SCAQMD significance threshold of 10,000 MTCO ₂ e per year, whether the Project is used for warehouse distribution/logistics or e-commerce/fulfillment.	Refer to MM 4.2-5 through MM 4.2-11, above.	N/A	N/A	N/A	Significant and Unavoidable Cumulatively-Considerable Impact
<u>Threshold b: Less-than-Significant Impact.</u> The Project would be consistent with or otherwise would not conflict with, applicable regulations, policies, plans, and policy goals that would further reduce GHG emissions.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
4.8 Hazards and Hazardous Materials					
Summary of Impacts					
<u>Threshold a and b: Less-than-Significant Impact.</u> During Project construction and operation, mandatory compliance to federal, State, and local regulations would ensure that the proposed Project would not create a significant hazard to the environment due to routine transport, use, disposal, or upset of hazardous materials.	<p>MM 4.8-1 Prior to the issuance of any demolition permits, the Project Applicant shall provide evidence to the City that a pre-demolition survey for asbestos-containing materials (ACMs) and lead-based paint (LBP) has been conducted for each building to be demolished. If ACMs or LBP are detected, MM 4.8-2 shall be implemented.</p> <p>MM 4.8-2 In the event that ACMs or LBP are detected during the pre-construction survey required by Mitigation Measure MM 4.8-1, the Project Applicant shall provide evidence to the City that all ACMs and LBP have been removed and disposed of according to applicable laws and regulations, as outlined in “Steps to Lead Safe Removal, Renovation, and Disposal” (U.S. EPA-740- K-11-001) issued October 2011 (www.epa.gov/lead) for LBP and “Standards for Demolition and Removal” (40 CFR Section 61.145) under the Asbestos National Emission Standard for Hazardous Air Pollutants (NESHAP) (www.epa.gov/asbestos) for ACMs.</p>	Project Applicant	City of Moreno Valley Building and Safety Division	Prior to the issuance of any demolition permits	Less-than-Significant Impact
		Project Applicant	City of Moreno Valley Building and Safety Division	In the event that ACMs or LBP are detected during the pre-construction survey required by Mitigation Measure MM 4.8-1	



Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
	<p>MM 4.8-3 In the event that any unidentified subsurface feature, oil, or chemical-stained concrete is discovered during grading or other ground-disturbing construction activity, all activity in the vicinity of the unidentified material shall be halted and a qualified hazardous materials professional shall be called to inspect the site and determine if further assessment is needed. The results of any testing shall be provided to the City. In the event that the material is determined not to be hazardous, no further action is required. In the event that the material is deemed hazardous, removal/remediation shall be conducted pursuant to applicable State Department of Toxic Substances Control (DTSC) or California Code of Regulations (CCR) Title 22 hazardous waste criteria or contamination standards for industrial land uses. This work must be carried out by a qualified hazardous materials professional hired by the Project Applicant. Prior to the completion of material removal, the Project Applicant shall submit evidence to the City for review and approval demonstrating that the hazardous material has been appropriately removed/remediated. This measure shall be implemented to the satisfaction of the City of Moreno Valley's Community Development Department.</p>	Hazardous Materials Professional	City of Moreno Valley Building and Safety Division	In the event that any unidentified subsurface feature, or chemical-stained concrete is discovered during grading or other ground-disturbing construction activity	
<p><u>Threshold c: Less-than-Significant Impact.</u> The Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.</p>	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
<p><u>Threshold d: No Impact.</u> The Project site is not located on any list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.</p>	No mitigation is required.	N/A	N/A	N/A	No Impact
<p><u>Threshold e: Less-than-Significant Impact.</u> The Project would not result in an airport safety hazard for people residing or working in the Project area.</p>	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact



Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
<u>Threshold f: Less-than-Significant Impact.</u> The Project site does not contain any emergency facilities nor does it serve as an emergency evacuation route. Accordingly, implementation of the Project would not impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
<u>Threshold g: No Impact.</u> The Project site is not located in close proximity to wildlands or areas with high fire hazards. Thus, the Project would not expose people or structures to a significant wildfire risk.	No mitigation is required.	N/A	N/A	N/A	No Impact
4.9 Hydrology and Water Quality					
Summary of Impacts					
<u>Threshold a: Less-than-Significant Impact.</u> The Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. Adherence to a SWPPP and WQMP is required as part of the Project's implementation to address construction- and operational-related water quality.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
<u>Threshold b: Less-than-Significant Impact.</u> The Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project would impede sustainable groundwater management of the Perris North Groundwater Basin.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
<u>Threshold c: Less-than-Significant Impact.</u> The Project Applicant would be required to comply with applicable water quality regulatory requirements to minimize erosion and siltation. Additionally, the Project would not result in flooding on- or off-site or impede/redirect flood flows. Lastly, the Project would not create or contribute runoff that would exceed the capacity of existing or planned stormwater	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact



Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
drainage systems or provide substantial additional sources of polluted runoff.					
<u>Threshold d: No Impact.</u> The Project site would not be subject to inundation from tsunamis, seiches, or other hazards.	No mitigation is required.	N/A	N/A	N/A	No Impact
<u>Threshold e: Less-than-Significant Impact.</u> The Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Land Use and Planning					
Summary of Impacts					
<u>Threshold a: No Impact.</u> The Project would not physically divide an established community.	No mitigation is required.	N/A	N/A	N/A	No Impact
<u>Threshold b: Less-than-Significant Impact.</u> The Project's proposed General Plan Amendment would eliminate inconsistencies between the proposed land use and the site's existing General Plan land use designation. The Project would not result in significant land use and planning conflicts in the context of compliance with applicable environmental plans, policies, and regulations beyond those identified in other Subsections of this EIR.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
4.10 Noise					
Summary of Impacts					
<u>Threshold a: Less-than-Significant Impact.</u> The Project would generate short-term construction and long-term operational noise but would not generate noise levels during construction and/or operation that exceed the standards established by the City of Moreno Valley General Plan or Municipal Code.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
<u>Threshold b: Less-than-Significant Impact.</u> The Project's construction and operational activities would not result in a perceptible groundborne vibration or noise.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
<u>Threshold c: Less-than-Significant Impact.</u> The Project site is not located within an area	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact



Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
exposed to high levels of airport noise. As such, the Project would not expose people to excessive noise levels associated with a public airport or public use airport.					
4.11 Transportation					
Summary of Impacts					
<u>Threshold a: Less-than-Significant Impact.</u> The Project would not conflict with a program, plan, ordinance or policy addressing the circulation system such that the Project would result in a significant impact on the environment. Although the Project would contribute to traffic congestion and hinder compliance with General Plan Circulation Element Policy 5.3 related to LOS criteria, SB 743 and the CEQA Guidelines stipulate that LOS is not to be used as a criteria for determining significant effects on the environment.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
<u>Threshold b: Less-than-Significant Impact.</u> The Project would not result in a significant VMT impact under the scenarios where the Project is operated as either a warehouse distribution/logistics use or an e-commerce/fulfillment use when all Project design features that would promote non-vehicular transportation and would reduce VMT from employee commutes are considered.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
<u>Threshold c: Less-than-Significant Impact.</u> No significant transportation safety hazards would be introduced as a result of the proposed Project.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
<u>Threshold d: No Impact.</u> Adequate emergency access would be provided to the Project site during construction and long-term operation. The Project would not result in inadequate emergency access to the site or surrounding properties.	No mitigation is required.	N/A	N/A	N/A	No Impact
4.12 Tribal Cultural Resources					



Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
Summary of Impacts					
Threshold a: <u>Significant Direct and Cumulatively-Considerable Impact.</u> The Project site does not contain any recorded, significant tribal cultural resource sites; therefore, the Project would not cause a substantial adverse change in the significance of a tribal cultural resource that is listed or eligible for listing in the California Register of Historical Resources or a local register of historical resources. Nonetheless, Project construction activities have the potential to unearth and adversely impact tribal cultural resources that may be buried or masked at the Project site.	MM 4.4-1 through 4.4-6 shall apply.	Refer to MM 4.4-1 through 4.4-6	Refer to MM 4.4-1 through 4.4-6	Refer to MM 4.4-1 through 4.4-6	Less-than-Significant Impact
4.13 Utilities and Service Systems					
Summary of Impacts					
Threshold a: <u>Less-than-Significant Impact.</u> The physical environmental effects associated with installing the Project's water, wastewater, stormwater drainage, and electric power infrastructure is evaluated throughout this EIR and no adverse impacts specific to the provision utilities services have been identified.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold b: <u>Less-than-Significant Impact.</u> EMWD is expected to have sufficient water supplies to service the Project. The Project would not exceed the EMWD's available supply of water during normal years, single-dry years, or multiple-dry years.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold c: <u>Less-than-Significant Impact.</u> EMWD would provide wastewater treatment services to the Project site via the Moreno Valley Regional Water Reclamation Facility, which would have adequate capacity to service the Project and no new or expanded facilities would be needed.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold d: <u>Less-than-Significant Impact.</u> There is adequate capacity available at the El	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact



Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE
Sobrante Landfill, Badlands Sanitary Landfill, and Lamb Canyon Sanitary Landfill to accept the Project's solid waste during both construction and long-term operation. The Project would not generate solid waste in excess of State or local standards or in excess of the capacity of local infrastructure to handle the waste.					
<u>Threshold e: Less-than-Significant Impact.</u> The Project would comply with all applicable federal, State, and local statutes and regulations related to the management and reduction of solid waste and pertaining to waste disposal, reduction, and recycling.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact



1.0 INTRODUCTION

This Environmental Impact Report (EIR) is an informational document that represents the independent judgment of the City of Moreno Valley (“City”), acting as the Lead Agency pursuant to the California Environmental Quality Act (CEQA), and evaluates the physical environmental effects that could result from constructing and operating the proposed Moreno Valley Trade Center project (hereafter, the “Project”). To implement the Project, the Project Applicant has requested that the City approve a General Plan Amendment (PEN19-0191), Change of Zone (PEN19-0192), Plot Plan (PEN19-0193), and Tentative Parcel Map (PEN19-0234). This EIR also described other related discretionary and administrative actions that are required to construct and operate the Project.

When the term “Project” is used in this EIR, it shall mean all aspects of the planning, construction, and operation of Moreno Valley Trade Center, including all discretionary and administrative approvals and permits required for the Project. When the term “Project Applicant” is used, it shall mean Moreno Valley TC, Inc., which is the entity that submitted applications for the Project as proposed and as evaluated in this EIR.

1.1 TYPE OF EIR

As the first step in the CEQA compliance process, the City prepared an Initial Study pursuant to CEQA Guidelines Section 15063. The Initial Study revealed that the Project has the *potential* to cause or contribute to significant environmental effects, and a Project EIR, as defined by CEQA Guidelines Section 15161, would be required. Accordingly, this document serves as a Project EIR.

Pursuant to CEQA Guidelines Section 15161, this Project EIR shall “...focus primarily on the changes in the environment that would result from the development project,” and “...examine all phases of the project including planning, construction, and operation.” Also, pursuant to CEQA Guidelines Section 15121(a), the purposes of this EIR are to: (1) disclose information by informing public agency decision makers and the public generally of the significant environmental effects associated with all phases of the Project; (2) identify possible ways to minimize or avoid those significant effects; and (3) describe a reasonable range of alternatives to the Project that would feasibly attain most of the basic Project objectives but would avoid or substantially lessen its significant environmental effects.

1.2 LIST OF PROJECT APPROVALS

The Project Applicant proposes to develop one light industrial building on an approximately 72.7 net-acre property (“Project site”)¹. The site is located south of Eucalyptus Avenue, west of Redlands Boulevard, and north of Encelia Avenue in the City of Moreno Valley, Riverside County, California. The Project requires demolition of an existing ornamental plant nursery and associated structures (i.e., one office building, shade and storage structures), three residential buildings with associated garages, storage sheds, and one swimming pool. The Project will also require subsequent construction and operation of a building with up to 1,328,853

¹ The Project site comprises approximately 80 acres (gross), inclusive of property proposed to be dedicated to the City of Moreno Valley as public right-of-way for Eucalyptus Avenue, Redlands Boulevard, and Encelia Avenue as well as existing public right-of-way for Quincy Street proposed to be vacated.



square feet (s.f.) of interior floor area. The Project's design also includes the installation of associated site improvements, including drive aisles, landscaping, utility infrastructure, water quality basins, exterior lighting, walls/fencing, and signage as well as street improvements to the segments of Eucalyptus Avenue, Redlands Boulevard, and Encelia Avenue that front the Project site.

The Project Applicant has filed applications for the following discretionary actions for the City's consideration:

- **General Plan Amendment (PEN19-0191)** proposes to amend the City of Moreno Valley General Plan Land Use Map to change the land use designation for all parcels within the Project site from "Residential Max 2 du/ac (R2)" to "Business Park/Light Industrial (BP)."
- **Change of Zone (PEN19-0192)** proposes to amend the City of Moreno Valley Zoning Map to change the zoning designation for all parcels within the Project site from "Residential Agriculture (RA2) District" and "Primary Animal Keeping Overlay Zone (PAKO)" to "Light Industrial (LI) District."
- **Plot Plan (PEN19-0193)** proposes a site, architecture, and landscape development plan for the Project site that provides for the construction and operation of a light industrial building with 1,328,853 s.f. of building floor area, inclusive of warehouse/storage space and supporting office space.
- **Tentative Parcel Map (PEN19-0234)** proposes to consolidate all 11 parcels of the Project site into one parcel of approximately 72.5 net acres. In addition, Tentative Parcel Map (PEN19-0234) includes the dedication of public right-of-way (ROW) to the City of Moreno Valley for Redlands Boulevard, Encelia Avenue, and Eucalyptus Avenue. Tentative Parcel Map (PEN19-0234) also would result in the vacation of public ROW for Redlands Boulevard that is no longer needed by the City and will result in the vacation of an on-site paper street (unimproved) segment of Quincy Street.

The Project components listed above are more fully described in detail in EIR Section 3.0, *Project Description*.

1.3 STATEMENT OF LEGAL AUTHORITY

This EIR has been prepared in accordance with all criteria, standards, and procedures of CEQA (California Public Resource Code Section 21000 *et seq.*) and the CEQA Guidelines (California Code of Regulations, Title 14, Division 6, Chapter 3, Section 15000 *et seq.*).

Pursuant to Public Resources Code Section 21067 and CEQA Guidelines Article 4 and Section 15367, the City of Moreno Valley is the Lead Agency under whose authority this EIR has been prepared. "Lead Agency" refers to the public agency that has the principal responsibility for carrying out or approving a project. Serving as the Lead Agency and before taking action to approve the Project, the City has the obligation to: (1) ensure that this EIR has been completed in accordance with CEQA and the CEQA Guidelines; (2) review and consider the information contained in this EIR as part of its decision making process; (3) make a statement that this EIR reflects the City's independent judgment; (4) ensure that all significant effects on the environment are eliminated or substantially lessened where feasible; and, if necessary (5) make written findings for each unavoidable significant environmental effect stating the reasons why mitigation measures or project



alternatives identified in this EIR are not feasible and citing the specific benefits of the Project that outweigh its unavoidable adverse effects (CEQA Guidelines Section 15090 through 15093).

Pursuant to CEQA Guidelines Sections 15040 through 15043, and upon completion of the CEQA review process, the City will have the legal authority under CEQA – and in conjunction with discretionary powers granted to the City by other laws –to do any of the following:

- Approve the Project;
- Require feasible changes in any or all activities involved in the Project in order to substantially lessen or avoid significant effects on the environment;
- Deny the Project in order to avoid one or more significant effects on the environment that would occur if the Project was approved as proposed²; or
- Approve the Project even though the Project would cause a significant effect on the environment if the City makes a fully informed and publicly disclosed decision that: 1) there is no feasible way to lessen the effect or avoid the significant effect; and 2) expected benefits from the Project will outweigh significant environmental impacts of the Project.

This EIR fulfills the CEQA environmental review requirements for the proposed General Plan Amendment (PEN19-0191), Change of Zone (PEN19-0192), Plot Plan (PEN19-0193), Tentative Parcel Map (PEN19-0234), and all other governmental discretionary and administrative actions related to the Project.

1.4 RESPONSIBLE AND TRUSTEE AGENCIES

Public Resources Code Section 21104 requires that all EIRs be reviewed by responsible and trustee agencies (see also CEQA Guidelines Sections 15082 and 15086(a)). As defined by CEQA Guidelines Section 15381, “the term ‘Responsible Agency’ includes all public agencies other than the Lead Agency that have discretionary approval power over the project.” A “Trustee Agency” is defined in CEQA Guidelines Section 15386 as “a state agency having jurisdiction by law over natural resources affected by a project which are held in trust for the people of the State of California.”

- Santa Ana Regional Water Quality Control Board (RWQCB) is identified as a Trustee Agency for the Project because it is responsible for the protection of California’s water resources and water quality. The Santa Ana RWQCB is responsible for issuance of a National Pollutant Discharge Elimination System (NPDES) Permit to ensure that during and after Project construction, on-site water flows do not result in siltation, other erosional actions, or degradation of surface or subsurface water quality. The Santa Ana RWQCB would also be responsible for issuing a permit allowing the disturbance of on-site non-wetland waters (roadside drainage ditches) to implement the Project.

² The State Constitution grants the City of Moreno Valley broad discretionary powers to consider the City’s “general welfare” (i.e., preservation of the public peace, safety, morals, and/or health) when making decisions to approve or disapprove a project, in addition to the environmental considerations under Sections 15040 through 15043 of the CEQA Guidelines,



- California Department of Fish and Wildlife (CDFW) is a Trustee Agency for the Project because it is responsible for considering any permits that would allow the disturbance of on-site non-wetland waters (i.e., roadside drainage ditches) that are necessary to implement the Project.
- Riverside County Department of Environmental Health is identified as a Responsible Agency in regards to the proposed removal of existing water wells on the Project site.

There are no other known Trustee Agencies or Responsible Agencies identified for the Project. Regardless, this EIR can be used by any Trustee Agency or Responsible Agency, whether identified in this EIR or not, as part of their decision-making processes in relation to the Project.

1.5 SCOPE OF THE EIR

1.5.1 EIR SCOPE

The City filed a Notice of Preparation (NOP) with the State Clearinghouse of the California Office of Planning and Research. Pursuant to CEQA Guidelines Section 15082(d), when a state agency is a state agency is a Responsible Agency or a Trustee Agency, the Lead Agency must send a copy of a NOP to the State Clearinghouse which then has responsibility for ensuring that the State Responsible and Trustee Agencies reply to the Lead Agency within the required time. The NOP was filed with the State Clearinghouse and distributed to potential Responsible Agencies, Trustee Agencies, and other interested parties on March 16, 2020, for a 30-day public review period. The NOP was distributed for public review to solicit responses that would help the City identify the full scope and range of potential environmental concerns associated with the Project so that these issues could be fully examined in this EIR.

In addition, a publicly-noticed EIR Scoping Meeting was held on April 8, 2020. Due to the COVID-19 State of Emergency, pursuant to Executive Order N-29-20, the City hosted the EIR Scoping Meeting via an internet-based video and phone conferencing service. The EIR Scoping Meeting provided public agencies, interested parties, and members of the general public an additional opportunity to learn about the Project, the CEQA review process, and how to submit comments on the scope and range of potential environmental concerns be addressed in this EIR.

The NOP, public review distribution list, and written comments received by the City during the NOP public review period are provided in *Technical Appendix A* to this EIR. Substantive issues raised in response to the NOP and during the Scoping Meeting are summarized below in Table 1-1, *Summary of NOP and Scoping Meeting Comments*. The purpose of Table 1-1 is to present a summary of the environmental topics that were identified by public agencies, interested parties, and members of the general public to be of primary interest. Table 1-1 does not list every comment received by the City during the NOP review period. Regardless of whether or not an environmental or CEQA-related comment is listed in Table 1-1, all relevant comments received in response to the NOP and the EIR Scoping Meeting are addressed in this EIR.



Table 1-1 Summary of NOP and Scoping Meeting Comments

ENVIRONMENTAL TOPIC	COMMENT	LOCATION IN EIR WHERE COMMENT IS ADDRESSED
Aesthetics	<ul style="list-style-type: none"> - Request that the EIR include an evaluation of the Project’s potential to adversely affect views from adjacent residential neighborhood as well as the potential for the Project to introduce substantial, adverse lighting and glare to the surrounding neighborhood. 	<ul style="list-style-type: none"> - Subsection 4.1, <i>Aesthetics</i>
Agriculture	<ul style="list-style-type: none"> - Request that the EIR address the Project’s potential effect to local agriculture. 	<ul style="list-style-type: none"> - Subsection 5.0, <i>Other CEQA Considerations</i>
Air Quality	<ul style="list-style-type: none"> - Recommendation to use the SCAQMD’s CEQA Air Quality Handbook (1993) when preparing the Project’s air quality analysis. - Recommendation to use the CalEEMod land use emissions software when preparing the Project’s air quality analysis. - Request to identify any potential adverse air quality impacts that could occur from all phases of the Project (including construction and operation) and all air pollutant sources related to the Project. - Request to quantify criteria pollutant emissions and compare the results to applicable SCAQMD regional and localized significance thresholds (LSTs). - Request that the EIR disclose the potential for the Project to result in adverse health effects related to diesel emissions, particularly to sensitive receptors. - Request that the Project incorporate design/mitigation measures to reduce any significant air pollutant emissions. - Request that the City ensures that the Project does not adversely impact neighboring disadvantaged communities. - Request that the EIR explicitly states whether the Project would include cold storage, and if so, to include design measures in the EIR specific to this use. - Request that the Project’s individual and cumulatively-considerable air quality and greenhouse gas impacts and associated public health effects be analyzed. - Request that Project-related trucks are prohibited on Encelia Avenue and are prohibited to park or idle on roadways. 	<p>Subsection 4.2, <i>Air Quality</i>, and Subsection 4.7, <i>Greenhouse Gas Emissions</i></p>
Biological Resources	<ul style="list-style-type: none"> - Request that the Project’s potential impacts to sensitive species and their habitat be thoroughly addressed in the EIR. 	<p>Subsection 4.3, <i>Biological Resources</i></p>
Energy	<ul style="list-style-type: none"> - Request that the Project incorporate design/mitigation measures to promote energy efficiency. 	<p>Subsection, 4.5, <i>Energy</i></p>
Hazards and Hazardous Materials	<ul style="list-style-type: none"> - Request that the EIR disclose any existing site hazards that could affect nearby sensitive receptors and also disclose any potential effects related to hazardous materials use/storage that could result from operation of the Project. 	<p>Subsection 4.8, <i>Hazards and Hazardous Materials</i></p>
Hydrology and Water Quality	<ul style="list-style-type: none"> - Request that the EIR evaluate potential effects related to water toxins and provide mitigation measures to address any adverse effects (if identified). - Request that the EIR addresses whether the Project would upgrade local storm drain infrastructure. 	<p>Section 3.0, <i>Project Description</i>, and Subsection 4.9, <i>Hydrology and Water Quality</i></p>



Table 1-1 Summary of NOP and Scoping Meeting Comments

ENVIRONMENTAL TOPIC	COMMENT	LOCATION IN EIR WHERE COMMENT IS ADDRESSED
Land Use and Planning	<ul style="list-style-type: none"> - Request the EIR address potential effects related to the Project’s compatibility with surrounding land uses. - Request that the EIR address the Project’s effect on the local housing supply. - Request that the EIR evaluate the Project’s consistency with local and regional land use plans, including the SCAG’s <i>2016-2040 Regional Transportation Plan (RTP)</i>. 	Subsection 4.10, <i>Land Use and Planning</i> , and Subsection 5.0, <i>Other CEQA Considerations</i>
Noise	<ul style="list-style-type: none"> - Request that the EIR disclose potential Project-related noise impacts to sensitive receptors. 	Subsection 4.11, <i>Noise</i>
Transportation	<ul style="list-style-type: none"> - Request that the EIR address whether the Project would be responsible for the expansion of the freeway overpass bridge at Moreno Beach Drive and Redlands Boulevard. - Request that the EIR address whether the Project would be responsible for the cost of the expansion of Encelia Avenue at the intersection of Encelia Avenue and Redlands Boulevard. - Request that the Project’s traffic study be based on the most current modeling data from SCAQMD. 	Subsection 4.12, <i>Transportation</i>
Tribal Cultural Resources	<ul style="list-style-type: none"> - Request for the Rincon Band of Luiseño Indians and Pechanga Band of Luiseño Indians to be fully notified and involved in the CEQA environmental review process. 	Subsection 4.13, <i>Tribal Cultural Resources</i>

In light of the comments received by the City in response to the NOP and the EIR Scoping Meeting, this EIR provides a detailed analysis of the Project’s potential to cause adverse effects under the following topic areas:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology & Soils
- Greenhouse Gas Emissions
- Hazards & Hazardous Materials
- Hydrology & Water Quality
- Land Use & Planning
- Noise
- Transportation
- Tribal Cultural Resources
- Utilities & Service Systems

The analysis related to the above topics is provided in EIR Section 4.0, *Environmental Analysis*.

Based on the analysis provided in the Initial Study prepared for the Project (see *Technical Appendix A*), the City concluded that the Project would clearly result in (1) no impacts or (2) less-than-significant to several environmental topic areas, including: agriculture and forestry resources, mineral resources, population and housing, public services, recreation, and wildfire. Potential effects to these topic areas are summarized in EIR Section 5.0, *Other CEQA Considerations*.



1.5.2 EIR FORMAT AND CONTENT

This EIR contains all of the information required to be included in an EIR as specified by CEQA (California Public Resources Code, Section 21000 *et. seq.*) and the CEQA Guidelines (California Code of Regulations, Title 14, Chapter 5). CEQA requires that an EIR contain, at a minimum, certain specified content. Table 1-2, *Location of CEQA Required Topics*, provides a quick reference guide for locating the CEQA-required sections within this document.

Table 1-2 Location of CEQA Required Topics

CEQA REQUIRED TOPIC	CEQA GUIDELINES REFERENCE	LOCATION IN THIS EIR
Table of Contents	§ 15122	Table of Contents
Summary	§ 15123	Section S.0
Project Description	§ 15124	Section 3.0
Environmental Setting	§ 15125	Section 2.0
Consideration and Discussion of Environmental Impacts	§ 15126	Section 4.0
Significant Environmental Effects Which Cannot be Avoided if the Project is Implemented	§ 15126.2(c)	Section 4.0 & Subsection 5.1
Significant Irreversible Environmental Changes Which Would be Caused by the Project Should it be Implemented	§ 15126.2(d)	Subsection 5.2
Growth-Inducing Impact of the Project	§ 15126.2(e)	Subsection 5.3
Consideration and Discussion of Mitigation Measures Proposed to Minimize Significant Effects	§ 15126.4	Section 4.0 & Table S-1
Consideration and Discussion of Alternatives to the Project	§ 15126.6	Section 6.0
Effects Not Found to be Significant	§ 15128	Subsection 5.4
Organizations and Persons Consulted	§ 15129	Section 7.0 & Technical Appendices
Discussion of Cumulative Impacts	§ 15130	Section 4.0
Energy Conservation	§ 15126.2(b) & Appendix F	Subsection 4.5

In summary, the content and format of this EIR are as follows:

- **Section S.0, Executive Summary** provides an overview of the EIR and CEQA process and provides a brief Project Description, which includes references to its objectives, the location and regional setting of the Project site and potential alternatives to the Project as required by CEQA. The Executive Summary also provides a summary of the Project’s impacts, mitigation measures, and conclusions, in a table that forms the basis of the Project’s Mitigation, Monitoring, and Reporting Program (MMRP).
- **Section 1.0, Introduction** provides introductory information about the CEQA process and the responsibilities of the City in its role as Lead Agency, a brief Project Description, the purpose of the EIR, and an overview of the EIR’s format.



- **Section 2.0, Environmental Setting** describes the environmental setting, including descriptions of the Project site’s physical conditions and surrounding context used as the baseline for analysis in the EIR.
- **Section 3.0, Project Description**, pursuant to CEQA Guidelines Section 15124, includes a detailed Project Description that identifies the precise location and boundaries of the Project, a map showing the Project’s location in a regional perspective, a statement of the Project’s objectives, a general description of the Project’s technical, economic, and environmental characteristics, and a statement describing the intended uses of the EIR, including a list of agencies expected to use the EIR, and a list of approvals for which the EIR will be used. The purpose of the detailed Project Description is to identify the Project’s main features and other information needed for an assessment of the Project’s environmental impacts.
- **Section 4.0, Environmental Analysis** provides an analysis of potential direct, indirect, and cumulative impacts that may occur with implementation of the Project. A determination concerning the significance of each impact is addressed and mitigation measures are presented when warranted. The environmental changes identified in Section 4.0 and throughout this EIR are referred to as “effects” or “impacts” interchangeably. CEQA Guidelines Section 15358 describe the terms “effects” and “impacts” as being synonymous.

In each subsection of Section 4.0, the existing conditions pertaining to the subject area being analyzed are discussed accompanied by a specific analysis of physical impacts that may be caused by implementing the Project. Impacts are evaluated on a direct, indirect, and cumulative basis. Direct impacts are those that would occur directly as a result of the Project. Indirect impacts represent secondary effects that would result from Project implementation. Cumulative effects are defined in CEQA Guidelines Section 15355 as “...two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.”

The analyses in Section 4.0 are based in part upon technical reports that are included in this EIR. Information also is drawn from other sources of analytical materials that directly or indirectly relate to the Project and are cited in Section 7.0, *References*.

Where the analysis identifies a significant environmental effect, feasible mitigation measures are recommended. Pursuant to CEQA and the CEQA Guidelines, an EIR must propose and describe mitigation measures to minimize the significant environmental effects identified in the EIR. The requirement that EIRs identify mitigation measures implements CEQA's policy that Lead Agencies adopt feasible measures when approving a project to reduce or avoid its significant environmental effects. Per Public Resources Code Section 21081.6 and CEQA Guidelines Section 15126.4, mitigation measures must be enforceable through conditions of approval, contracts or other means that are legally binding. Pursuant to Public Resources Code Section 21081.6, incorporating mitigation measures into conditions of approval is sufficient to demonstrate that the measures are enforceable. This requirement is designed to ensure that mitigation measures will actually be implemented, not merely adopted and then ignored. In light of the foregoing, the identified mitigation measures are analyzed to determine whether they would effectively reduce or avoid any



significant environmental effects. In most cases, implementation of the mitigation measures would reduce an identified significant environmental effect to below a level of significance. If mitigation measures are not available or feasible to reduce an identified impact to below a level of significance, the environmental effect is identified as a significant and unavoidable adverse impact, for which a Statement of Overriding Considerations would need to be adopted by the Lead Agency pursuant to CEQA Guidelines Section 15093.

- **Section 5.0, Other CEQA Considerations** includes specific topics that are required by CEQA. These include a summary of the Project’s significant and unavoidable environmental effects, a discussion of the significant and irreversible environmental changes that would occur should the Project be implemented, as well as potential growth-inducing impacts of the Project. Section 5.0 also includes a discussion of the potential environmental effects that were found not to be significant during preparation of this EIR.
- **Section 6.0, Project Alternatives** describes and evaluates alternatives to the Project that could reduce or avoid the Project’s adverse environmental effects. CEQA does not require an EIR to consider every conceivable alternative to the Project but rather to consider a reasonable range of alternatives, including a “No Project” alternative, that will foster informed decision making and public participation.
- **Section 7.0, References** cites all reference sources used in preparing this EIR and lists the agencies and persons that were consulted in preparing this EIR. Section 7.0 also lists the persons who authored or participated in preparing this EIR.

1.6 INCORPORATION BY REFERENCE

CEQA Guidelines Section 15147 states that the “information contained in an EIR shall include summarized...information sufficient to permit full assessment of significant environmental impacts by reviewing agencies and members of the public,” and that the “[p]lacement of highly technical and specialized analysis and data in the body of an EIR shall be avoided through the inclusion of supporting information and analyses as appendices to the main body of the EIR.” CEQA Guidelines Section 15150 allows for the incorporation “by reference all or portions of another document... [and is] most appropriate for including long, descriptive, or technical materials that provide general background but do not contribute directly to the analysis of a problem at hand.” The purpose of incorporation by reference is to assist the Lead Agency in limiting the length of an EIR. Where this EIR incorporates a document by reference, the document is identified in the body of the EIR, citing the appropriate section(s) of the incorporated document and describing the relationship between the incorporated part of the referenced document and this EIR. Refer to EIR Section 7.0, *References*, for a list of documents incorporated into this EIR by reference.

This EIR also relies on a number of Project-specific technical appendices that are bound separately as Technical Appendices. The Technical Appendices are available for review at the City of Moreno Valley Community Development Department Planning Division, 14177 Frederick Street, Moreno Valley, California, 92552, during the City’s regular business hours or can be accessed on the City’s website at <http://www.moval.org/cdd/documents/about-projects.html>. The individual technical studies, reports, and supporting documentation that comprise the Technical Appendices are as follows:



- A: Initial Study, Notice of Preparation, and Written Comments on the NOP
- B1: Air Quality Impact Analysis – Warehouse Use
- B2: Air Quality Impact Analysis – E-Commerce Use
- B3: Health Risk Assessment – Warehouse Use
- B4: Health Risk Assessment – E-Commerce Use
- C1: Biological Technical Report
- C2: Jurisdictional Delineation
- C3: Determination of Biologically Equivalent or Superior Preservation
- D: Cultural Resources Report
- E1: Energy Analysis – Warehouse Use
- E2: Energy Analysis – E-Commerce Use
- F: Geotechnical Report
- G: Paleontological Resource Assessment
- H1: Greenhouse Gas Emissions Analysis – Warehouse Use
- H2: Greenhouse Gas Emissions Analysis – E-Commerce Use
- I: Phase I Environmental Site Assessment
- J1: Hydrology Report – Warehouse Use
- J2: Preliminary Water Quality Management Plan – Warehouse Use
- J3: Hydrology Report – E-Commerce Use
- J4: Preliminary Water Quality Management Plan – E-Commerce Use
- J5: Supplemental Hydrology Analysis
- K1: Noise Impact Analysis – Warehouse Use
- K2: Noise Impact Analysis – E-Commerce Use
- L1: Traffic Impact Analysis – Warehouse Use
- L2: Traffic Impact Analysis – E-Commerce Use
- L3: Trip Generation Comparison – Warehouse Use
- L4: Trip Generation Comparison – E-Commerce Use
- M: Water Supply Assessment

Other reference sources that are incorporated into this EIR by reference are listed in Section 7.0, *References*, of this EIR. In most cases, documents or websites not included in the EIR's Technical Appendices are cited by a link to the online location where the document/website can be viewed. References relied upon by this EIR will be available for public review at the City of Moreno Valley Community Development Department Planning Division, 14177 Frederick Street, Moreno Valley, California, 92552.



2.0 ENVIRONMENTAL SETTING

2.1 REGIONAL SETTING AND LOCATION

The Project site is located in the City of Moreno Valley, which is located in western Riverside County, California. The City of Moreno Valley is situated north of the City of Perris, northwest of the City of Hemet, west of the City of Beaumont, east of the City of Riverside, and northeast of the unincorporated communities of Mead Valley and Woodcrest. The Project site is located approximately 0.4-mile southwest of the Redlands Boulevard on/off-ramp and approximately 0.9-mile southeast of the Moreno Beach Drive on/off-ramp to State Route 60 (SR-60) and approximately 7.3 miles east of Interstate 215 (I-215). The site's location and regional context are shown on Figure 3-1, *Regional Map*, in EIR Section 3.0, *Project Description*.

The Project site is located in an urbanized area of southern California commonly referred to as the “Inland Empire.” The Inland Empire is an approximate 28,000 square mile region comprising Riverside County, San Bernardino County, and the eastern tip of Los Angeles County. According to U.S. Census data, the 2019 population of Riverside County was 2,470,546 (USCB, 2019). The Southern California Association of Governments (SCAG) forecast models predict that the population of Riverside County will grow to approximately 3.25 million persons by the year 2045 (SCAG, 2020c).

2.2 LOCAL SETTING AND LOCATION

The Project site is located immediately south of Eucalyptus Avenue, immediately west of Redlands Boulevard, immediately north of Encelia Avenue, and immediately east of the Quincy Channel as illustrated on Figure 3-2, *Vicinity Map*, and Figure 3-3, *USGS Topographic Map*.

2.3 SURROUNDING LAND USES

Existing land uses in the immediate vicinity of the Project site are illustrated on Figure 2-1, *Surrounding Land Uses*, and are described below.

- North: Eucalyptus Avenue abuts the Project site on the north. North of Eucalyptus Avenue is a warehouse distribution center (Aldi Distribution Center) and vacant, undeveloped land. The area north of the Project site is designated for “Business Park/Light Industrial” and “Commercial” land uses by the City of Moreno Valley General Plan and zoned “Light Industrial (LI) District” and “Community Commercial (CC) District.”
- South: Encelia Avenue abuts the Project site on the south. South of Encelia Avenue is a residential community and vacant, undeveloped land. The area south of the Project site is designated by the General Plan for “Residential 2” land uses and is zoned “Residential Agriculture 2 (RA2) District” with the “Primary Animal Keeping Overlay (PAKO).”
- West: Immediately west of the Project site is a meandering dirt channel (Quincy Channel). Further west is vacant, undeveloped land. The areas west of the Project site are designated by the General Plan



for “Residential 2” and “Residential 5” land uses and are zoned “RA2 District” and “Residential 5 (R5) District;” both zoning classifications carry the “PAKO” designation.

- East: Immediately east of the Project site is Redlands Boulevard. Farther east (beyond Redlands Boulevard) is vacant, undeveloped land that designated by the General Plan for “Business Park/Light Industrial” land uses. This land is within the approved World Logistics Center Specific Plan and is planned for industrial uses.

2.4 PLANNING CONTEXT

2.4.1 CITY OF MORENO VALLEY GENERAL PLAN

The City of Moreno Valley’s prevailing planning document is its General Plan, dated July 2006. As depicted on Figure 2-2, *Existing General Plan Land Use Map*, the City’s General Plan designates the Project site for “Residential: Max 2 du/ac (R2)” land uses. The “R2” land use designation is intended to provide for suburban lifestyles on residential lots larger than commonly available in suburban subdivisions and to provide a rural atmosphere (Moreno Valley, 2006, p. 9-3). The maximum allowable density for “R2” land uses is 2.0 dwelling units per acre (du/ac) (ibid.). At the time this EIR was prepared, the City of Moreno Valley had initiated a General Plan Update process, but the General Plan Update was not adopted (and a draft of the General Plan Update had yet to be made available to the public) and the 2006 General Plan is the applicable General Plan.

2.4.2 ZONING

As shown on Figure 2-3, *Existing Zoning*, the City of Moreno Valley Zoning Map applies the “Residential Agriculture (RA2) District” zoning classification to the entire Project site. According to the City of Moreno Valley Municipal Code, the primary purpose of the “RA2” zoning district is to provide for suburban lifestyles on residential lots larger than are commonly available in suburban subdivisions and to provide for and protect the rural and agricultural atmosphere, including the keeping of animals, that have historically characterized these areas (Moreno Valley, 2018, § 9.03.020.E). This district is intended as an area for development of large lot, single-family residential development at a maximum allowable density of two dwelling units (DU) per net acre (ibid.).

The City of Moreno Valley’s Zoning Ordinance also applies the “Primary Animal Keeping Overlay (PAKO)” zoning overlay to the Project site. The PAKO is intended to maintain animal keeping and the rural character of the area noted within the overlay district and designates a portion of the parcel for medium and large animal keeping. Any proposed development within the PAKO must comply with City Zoning Ordinance Section 9.07.080, *Primary Animal Keeping Overlay (PAKO)* (ibid.).

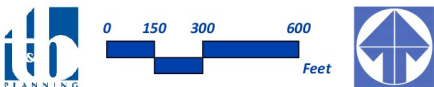
2.4.3 SCAG REGIONAL TRANSPORTATION PLAN / SUSTAINABLE COMMUNITIES STRATEGY

The Southern California Association of Governments (SCAG) is a Joint Powers Authority (JPA) under California State law, established as an association of local governments and agencies that voluntarily convene as a forum to address regional issues. Under federal law, SCAG is designated as a Metropolitan Planning Organization (MPO) and under State law as a Regional Transportation Planning Agency and a Council of

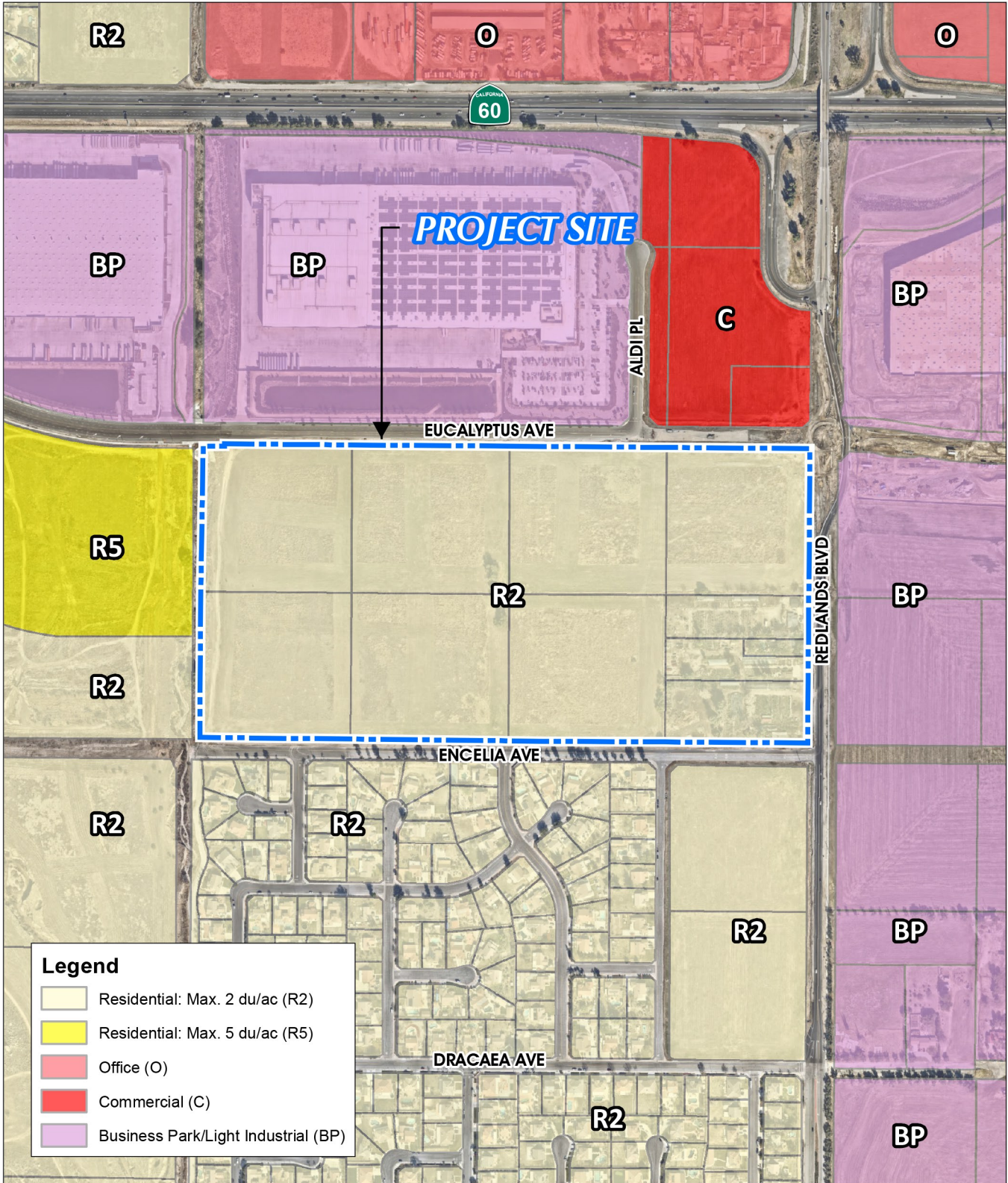


Source(s): ESRI, Nearmap Imagery (2019), RCLMA (2019)

Figure 2-1

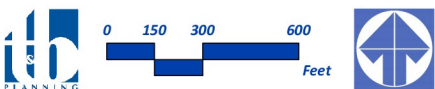


Surrounding Land Uses

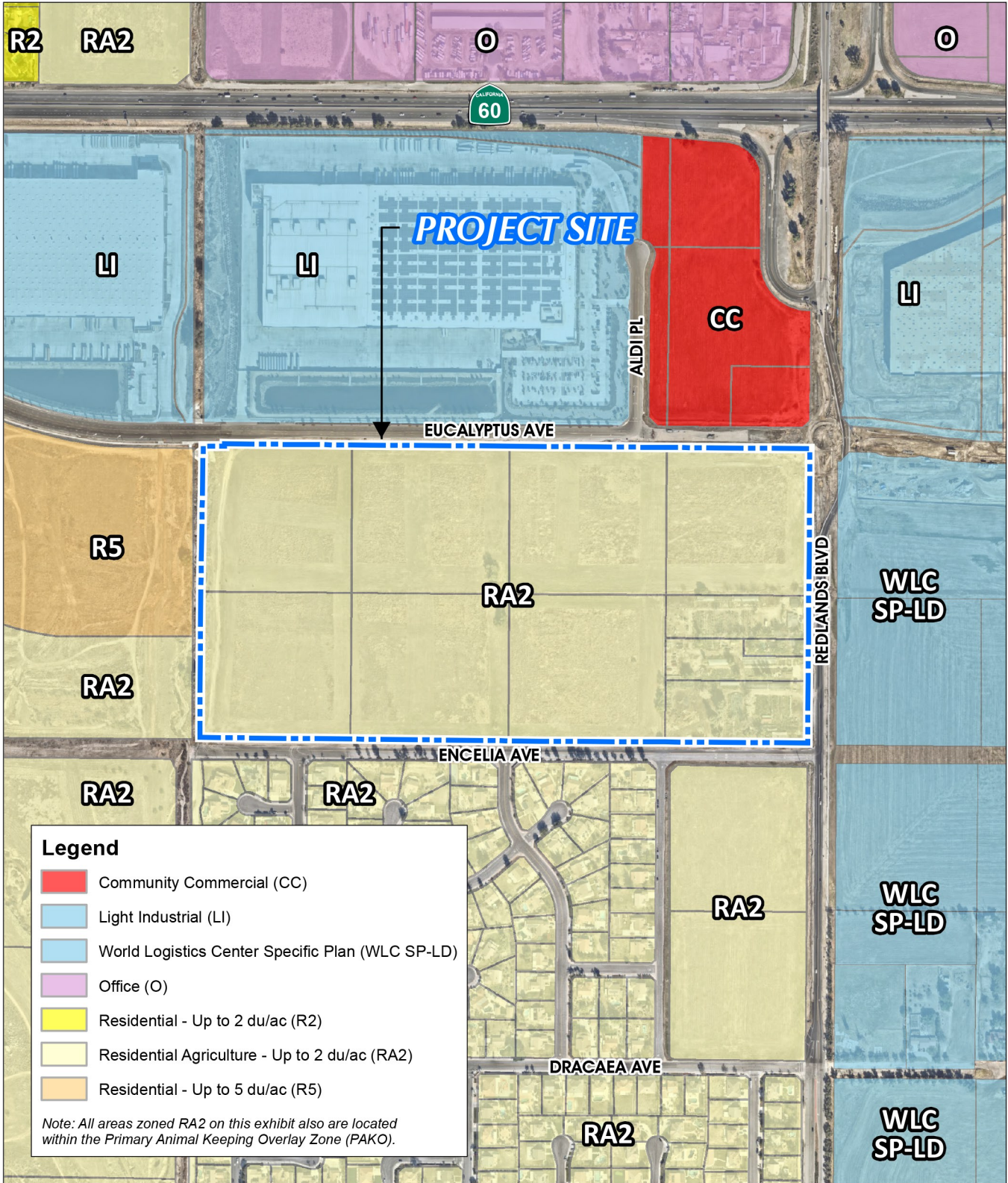


Source(s): City of Moreno Valley (2019), ESRI, Nearmap Imagery (2019), RCTLMA (2019)

Figure 2-2

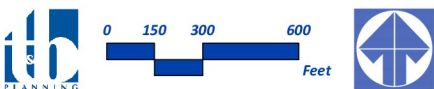


Existing General Plan Land Use Map



Source(s): City of Moreno Valley (2019), ESRI, Nearmap Imagery (2019), RCTLMA (2019)

Figure 2-3



Existing Zoning



Governments (SCAG, 2020a). The SCAG region encompasses six counties (Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura) and 191 cities in an area covering more than 38,000 square miles (ibid.). SCAG develops long-range regional transportation plans including sustainable communities strategy and growth forecast components, regional transportation improvement programs, regional housing needs allocations and other plans for the region (ibid.).

SCAG's 2020-2045 Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS) develops long-range regional transportation plans including a sustainable communities strategy and growth forecast components, regional transportation improvement programs, regional housing needs allocations and other plans for the region. The RTP/SCS provides objectives for meeting air pollution emissions reduction targets set forth by the California Air Resources Board (CARB); these objectives were provided in direct response to Senate Bill 375 (SB 375) which was enacted to reduce greenhouse gas emissions from automobiles and light trucks through integrated transportation, land use, housing, and environmental planning. The Subregional Sustainable Communities Strategies identifies the Project site as being located in an area with a "Standard Suburban" land use pattern, which is defined as auto-oriented development with a minimal mix of land uses (SCAG, 2020, p. 45).

2.5 EXISTING PHYSICAL SITE CONDITIONS

CEQA Guidelines Section 15125(a)(1), recommends that the physical environmental condition that existed at the time an EIR's NOP is released for public review normally be used as the comparative baseline for the EIR analysis. The NOP for this EIR was released for public review on March 16, 2020, and the following pages include a description of the Project site's physical environmental condition ("existing conditions") as of that approximate date. More information regarding the Project's site's environmental setting is provided in the specific subsections of EIR Section 4.0, *Environmental Analysis*.

2.5.1 LAND USE

Under existing conditions, the Project site is mainly vacant and undeveloped, except for an approximately 8.5-acre active plant nursery (Adam Hall's Plant Nursery) with associated structures (i.e., an office building, shade and storage structures), three residential buildings with associated garages and storage sheds and one swimming pool/hot tub located at the southeast corner of the Project site. All three of these residential buildings are occupied under existing conditions. A natural meandering dirt channel (Quincy Channel) is located along the western Project site boundary and enters the Project site from the northwest through a culvert and flows in a southerly direction for 1,487 linear feet before continuing off-site past Encelia Avenue. Two dry, isolated drainage ditches that were constructed in and drain wholly upland areas also are located abutting the northern and eastern Project site boundary.

Pursuant to CEQA Guidelines Section 15125(d), the environmental setting should identify any inconsistencies between a proposed project and applicable general, specific, or regional plans. The Project Applicant proposes to develop the Project site with a large light industrial building containing warehouse/storage space and supporting office space. The Project Applicant's proposal is not consistent with the Project site's existing General Plan land use and zoning designations of "R2" and "RA2 and PAKO," respectively, and would necessitate changing the land use and zoning designations applied to the property to "Business Park/Light



Industrial” and “Industrial,” respectively. The principal discretionary actions required of the City of Moreno Valley to implement the Project are described in detail in EIR Section 3.0, *Project Description*. The potential environmental effects associated with the Project’s inconsistency with existing land use designations are evaluated in Section 4.0, *Environmental Analysis*, of this EIR.

2.5.2 AESTHETICS AND TOPOGRAPHIC FEATURES

The Project site slopes gently from northwest to southeast and is perceived to be moderately flat; the site’s high point is approximately 1,755 feet above mean sea level (amsl) in the northwestern portion of the site and its low point as approximately 1,704 amsl in the southeastern portion of the Project site (Google Earth Pro, 2020). Figure 3-3, *USGS Topographic Map*, in EIR Section 3.0, *Project Description*, depicts the Project site’s existing topographic conditions. Ornamental landscaping surrounds the three residences on the Project site and the remaining undeveloped area consists of ruderal/weedy vegetation and grassland. There are no rock outcroppings or other unique topographic or aesthetic features present on the property.

2.5.3 AIR QUALITY AND CLIMATE

The Project site is located in the 6,745-square-mile South Coast Air Basin (SCAB), which includes portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County. The SCAB is bound by the Pacific Ocean to the west and the San Gabriel, San Bernardino, the San Jacinto Mountains to the north and east, and San Diego County to the south. The SCAB is within the jurisdiction of the South Coast Air Quality Management District (SCAQMD), the agency charged with bringing air quality in the SCAB into conformity with federal and State air quality standards. Although the climate of the SCAB is characterized as semi-arid, the air near the land surface is quite moist on most days because of the presence of a marine layer. More than 90% of the SCAB’s rainfall occurs from November through April. Temperatures during the year range from an average minimum of 36°F in January to over 100°F maximum in the summer. During the late autumn to early spring rainy season, the SCAB is subjected to wind flows associated with the traveling storms moving through the region from the northwest. This period also brings five to ten periods of strong, dry offshore winds, locally termed “Santa Ana(s)” each year.

At the regional level, air quality in the SCAB has improved over the past several decades; however, the SCAB is currently not in attainment of State and/or federal standards established for Ozone (O₃; one-hour and eight-hour), particulate matter (PM₁₀ (State standard only) and PM_{2.5}), and Lead (only in Los Angeles County) (Urban Crossroads, 2020a, p. 23; Urban Crossroads, 2020b, p. 23). No areas of the SCAB exceeded federal or State standards for nitrogen dioxide (NO₂), sulfur dioxide (SO₂), carbon monoxide (CO), or sulfates (ibid.).

Refer to EIR Subsections 4.2, *Air Quality*, and 4.7, *Greenhouse Gas Emissions*, for a more detailed discussion of the existing air quality and climate setting in the Project area.

2.5.4 CULTURAL RESOURCES & TRIBAL CULTURAL RESOURCES

The Project site is located in an area that was historically used for agriculture purposes. The Project site contains two historic-period resources associated with the agricultural history of the area: the remnants of a residential complex and the Adam Hall Plant Nursery. Neither of these resources, however, meet the definition of a historically significant resource (Rincon, 2019a, pp. 29-36).



The Project site is located in the traditional tribal use areas of the Pechanga Band of Luiseño Indians, Rincon Band of Luiseño Indians and the Morongo Band of Mission Indians. No prehistoric resource sites or isolates were identified on the Project site during a field survey conducted by a professional archaeologist and, based on archaeological records from the South Central Coastal Information Center (SCCIC) at University of California, Riverside, no prehistoric artifacts have been previously recorded on the Project site (Rincon, 2019a, pp. 19, 36).

2.5.5 GEOLOGY

Regionally, the Project site is located in the Peninsular Ranges geomorphic province, a prominent natural geomorphic province that extends from the Santa Monica Mountains approximately 900 miles south to the tip of Baja California, Mexico, and is bounded to the east by the Colorado Desert. The Peninsular Ranges province is composed of plutonic and metamorphic rock, lesser amounts of Tertiary Volcanic and sedimentary rock, and Quaternary drainage in-fills and sedimentary veneers. The Project site is underlain by Holocene alluvium, which contains a low paleontological sensitivity. Pleistocene older alluvium, which contains a high paleontological sensitivity, underlies Holocene alluvium at depths of 10 feet below ground surface (bgs) (Rincon, 2019b, p. 10).

The geologic structure of the entire southern California area is dominated mainly by northwest-trending faults associated with the San Andreas system. Similar to other properties throughout southern California, the Project site is located within a seismically active region and is subject to ground shaking during seismic events; however, no known active or potentially active faults exist on or near the Project site nor is the site situated within an “Alquist-Priolo” Earthquake Fault Zone (SCG, 2019, p. 11).

The Project site is underlain by native alluvial soils extending to at least the maximum depth explored at approximately 50 feet bgs (SCG, 2019, p. 7). The majority of the observed native alluvial soils are classified as loose to medium dense fine sandy silts and silty fine sands with varying clay, medium to coarse sand and fine gravel content (ibid.). Some of these soils are classified as loose to medium dense well graded sands and clayey sands as well as medium stiff to hard silty clay, clayey silt, and fine sand clay strata (ibid.). At depths greater than 30 feet, occasional dense sands, silty sands, and clayey sands were encountered (ibid.).

2.5.6 HYDROLOGY

The Project site is located in the Santa Ana River watershed, which drains an approximately 2,650-square-mile area and is the principal surface flow water body within the region. The Santa Ana River starts in Santa Ana Canyon in the southern San Bernardino Mountains and runs southwesterly across San Bernardino, Riverside, and Orange Counties, where it discharges into the Pacific Ocean at the City of Huntington Beach. The Project site and vicinity are within the purview of the Santa Ana Regional Water Quality Control Board (RWQCB). The Santa Ana RWQCB’s Santa Ana River Basin Water Quality Control Plan is the governing water quality plan for the region, which sets forth goals and objectives for protecting water quality within the region (RWQCB, 2016, p. 1.1).



Under existing conditions, stormwater flows from the Project site travel as surface sheet flow from north to south to Encelia Avenue, which then travels from west to east to Redlands Boulevard and ultimately discharges to an existing channel adjacent to Redlands Boulevard (Thienes, 2019a).

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) No. FIRM No. 06065C0770G, dated August 28, 2008, the Project site is located within FEMA Flood Zone X (Shaded (FEMA, 2008)). Flood Zone X (Shaded) is correlated with areas within a 500-year floodplain; the Project site is not located in a special flood hazard area (i.e., 100-year floodplain) (ibid.).

Refer to EIR Subsection 4.9, *Hydrology & Water Quality*, for a more detailed discussion of the Project's site existing hydrology and water quality setting.

2.5.7 NOISE

Primary sources of noise in the Project site's vicinity include traffic noise from vehicles traveling along roadways that abut the site (i.e., Eucalyptus Avenue, Redlands Boulevard, and Encelia Avenue). Urban Crossroads, Inc. collected 24-hour noise measurements at three locations in the Project vicinity on December 12, 2019, to determine the baseline for the existing noise environment. Measured daytime noise levels in the area ranged from 51.0 equivalent level decibels (dBA Leq) to 75.3 dBA Leq and nighttime noise levels ranged from 50.4 dBA Leq to 73.8 dBA Leq (Urban Crossroads, 2020i, pp. 27-29; Urban Crossroads, 2020j, pp. 27-29). The measured noise levels correlate to a Community Noise Equivalent Level (CNEL) ranging from 56.8 CNEL to 80.5 CNEL (ibid.).

Refer to EIR Subsection 4.11, *Noise*, for a more detailed discussion of the Project's site existing noise setting.

2.5.8 TRANSPORTATION

The Project site is located immediately north of Encelia Avenue, immediately west of Redlands Boulevard, and immediately south of Eucalyptus Avenue. Existing traffic on nearby roadways consist of both passenger vehicles and trucks passing through the area and accessing nearby land uses. The primary regional vehicular travel route serving the Project area is SR-60, which is located approximately 0.25-mile north of the Project site (Google Earth Pro, 2020). The Project site is located approximately 0.25 roadway mile southwest of the Redlands Boulevard on/off-ramp to SR-60 and approximately 0.8 roadway mile southeast of the Moreno Beach Drive on/off-ramp to SR-60 (ibid.). SR-60 provides access to I-215, which is located approximately 7.3 miles to the northwest of the Project site (ibid.).

The average number of miles an employee travels in the City of Moreno Valley per day in 2020 by automobile, according to available data, is 12.3 miles (Translutions, 2020a, p. 66; Translutions, 2020b, pp. 19-20). This is referred to as vehicle miles traveled, or VMT. The length of VMT can be reduced by non-automobile means of transportation. North of the Project site, there is an existing Class II bicycle lane on Eucalyptus Avenue west of the Project site to Nason Street. There are no existing bicycle lanes on Redlands Boulevard bordering the Project site to the east or on Encelia Avenue bordering the Project site to the south. Regarding sidewalks and trails, to the south of the Project site there is a sidewalk on the south side of Encelia Avenue between Shubert Street and the western Project boundary, and there is a sidewalk system within the residential



community to the south. To the north of the Project site along the frontage of the Aldi warehouse development, there is a new sidewalk and a multi-use trail on the north side of Eucalyptus Avenue that were recently installed.

Public transit service in the region is provided by Riverside Transportation Agency (RTA) and commuter rail transportation (Metrolink), which is operated by the Southern California Regional Rail Authority (SCRRA) (Translutions, 2020a, pp. 19-20; Translutions, 2020b, pp. 19-20; Google Earth Pro, 2020). The nearest transit route is located approximately 1.5 miles southwest of the Project site on Eucalyptus Avenue via Route 31 (ibid.). The nearest Metrolink station is located approximately 8.0 miles southwest of the Project site at the March Field Station, 14160 Meridian Parkway (ibid.).

Refer to EIR Subsection 4.12, *Transportation*, for a more detailed discussion of the Project site's existing transportation setting.

2.5.9 UTILITIES AND SERVICE SYSTEMS

The Eastern Municipal Water District (EMWD) provides water and sewer service to the Project area. Under existing conditions, water mains and sewer mains are installed beneath Eucalyptus Avenue, Redlands Boulevard, and Encelia Avenue. The City of Moreno Valley conveys wastewater flows to the Moreno Valley Regional Water Reclamation Facility, which is operated by EMWD. Solid waste from the City of Moreno Valley is disposed at either the El Sobrante Landfill, Badlands Sanitary Landfill, or Lamb Canyon Sanitary Landfill.

Refer to EIR Subsection 4.14, *Utilities and Service Systems*, for a more detailed discussion of the Project site's existing public utility and service systems.

2.5.10 VEGETATION COMMUNITIES

The Project site does not contain special-status plant species and does not support sensitive vegetation communities (GLA, 2020a, pp. 1, 23-24). The entire Project site has been previously disturbed/developed; the areas that are not covered by the plant nursery and associated structures are covered by ruderal vegetation or ornamental landscaping (ibid.). On-site ruderal vegetation primarily is composed of London rocket (*Sisymbrium irio*), cheeseweed (*Malva parviflora*), common fiddleneck (*Amsinckia intermedia*), red brome (*Bromus madritensis* ssp. *rubens*), and Russian thistle (*Salsola australis*) (ibid.). On-site ornamental landscaping occurs in the central and southeastern portions of the Project site and primarily is composed of non-native or planted tree species, including Fremont cottonwood (*Populus fremontii*) and red gum (*Eucalyptus camaldulensis*) (ibid.). A complete list of plant species observed on the Project site is included Appendix A of *Technical Appendix C1*.

Refer to EIR Subsection 4.3, *Biological Resources*, for a more detailed discussion of the Project's site existing biological setting.

2.5.11 WILDLIFE

The Project site is not located in an area designated as wildlife habitat with conservation value (GLA, 2020a, pp. 34-37). One special-status wildlife species, the northern harrier (*Circus cyaneus*), was observed on the



Project site during biological field surveys (ibid.). A complete list of wildlife species observed on the Project site and with the potential to occur on the Project site is included Appendix B of *Technical Appendix C1*.

Refer to EIR Subsection 4.3, *Biological Resources*, for a more detailed discussion of the Project's site existing biological setting.

2.5.12 RARE AND UNIQUE RESOURCES

As required by CEQA Guidelines Section 15125(c), the environmental setting should place special emphasis on resources that are rare or unique to that region and would be affected by the project. Based on the existing conditions of the Project site and surrounding area described above and discussed in more detail in Section 4.0, *Environmental Analysis*, the Project site does not contain any resources that are rare or unique to the region.



3.0 PROJECT DESCRIPTION

This section provides all of the information required of an EIR Project Description pursuant to CEQA Guidelines Section 15124, including a description of the Project's precise location and boundaries; a statement of the Project's objectives; a description of the Project's technical, economic, and environmental characteristics; and a description of the intended uses of this EIR (including a list of the government agencies that are expected to use this EIR in their decision-making processes); a list of the permits and approvals that are required to implement the Project; and a list of related environmental review and consultation requirements.

3.1 PROJECT LOCATION

As shown on Figure 3-1, *Regional Map*, the Project site is located in the eastern portion of the City of Moreno Valley, Riverside County, California. The City of Moreno Valley is located north of the City of Perris, northwest of the City of Hemet, west of the City of Beaumont, east of the City of Riverside, and northeast of the unincorporated communities of Mead Valley and Woodcrest.

At the local scale, the Project site is located immediately south of Eucalyptus Avenue, immediately west of Redlands Boulevard, immediately north of Encelia Avenue, and immediately east of the Quincy Channel (see Figure 3-2, *Vicinity Map*, and Figure 3-3, *USGS Topographic Map*). The approximately 72.7-net-acre¹ Project site includes 11 parcels, including Assessor Parcel Numbers (APNs): 488-340-002 through -012. Refer to EIR Subsection 2.3, *Surrounding Land Uses*, for a description of existing land uses that abut the Project site.

3.2 STATEMENT OF OBJECTIVES

The fundamental purpose and goal of the Moreno Valley Trade Center Project is to develop a modern light industrial building in the City of Moreno Valley in close proximity to the State highway system, to increase employment opportunities and improve the City's economic competitiveness. This underlying purpose aligns with various aspects of the Southern California Association of Governments' (SCAG's) 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) primarily related to accommodating goods movement industries and balancing job and housing opportunities in local areas to reduce long commutes from home to work. SCAG identifies the Inland Empire as a housing rich area and coastal communities as job rich areas and is striving in their policies to achieve more equal balances locally. The Project would achieve its underlying purpose and goal through the following objectives.

- A. To expand economic development, facilitate job creation, and increase the tax base for the City of Moreno Valley by establishing new industrial development adjacent to established and planned industrial areas.
- B. To attract employment-generating businesses to the City of Moreno Valley to reduce the need for members of the local workforce to commute outside the area for employment, thereby improving the jobs-housing balance in the City.

¹ The Project site comprises approximately 80 acres (gross), inclusive of property proposed to be dedicated to the City of Moreno Valley as public right-of-way for Eucalyptus Avenue, Redlands Boulevard, and Encelia Avenue as well as existing public right-of-way for Quincy Street proposed to be vacated.



- C. To develop a Class A speculative light industrial building in Moreno Valley that is designed to meet contemporary industry standards and be economically competitive with similar industrial buildings in the local area and region.
- D. To attract businesses that can expedite the delivery of essential goods to consumers and businesses in Moreno Valley and beyond the City boundary.
- E. To develop a project that has architectural design and operational characteristics that complement other existing and planned buildings in the immediate vicinity and minimize conflicts with other nearby land uses.
- F. To develop a light industrial building in close proximity to designated truck routes and the State highway system to avoid or shorten truck-trip lengths on other roadways.
- G. To develop a property that has access to available infrastructure, including roads and utilities.

3.3 PROJECT COMPONENTS

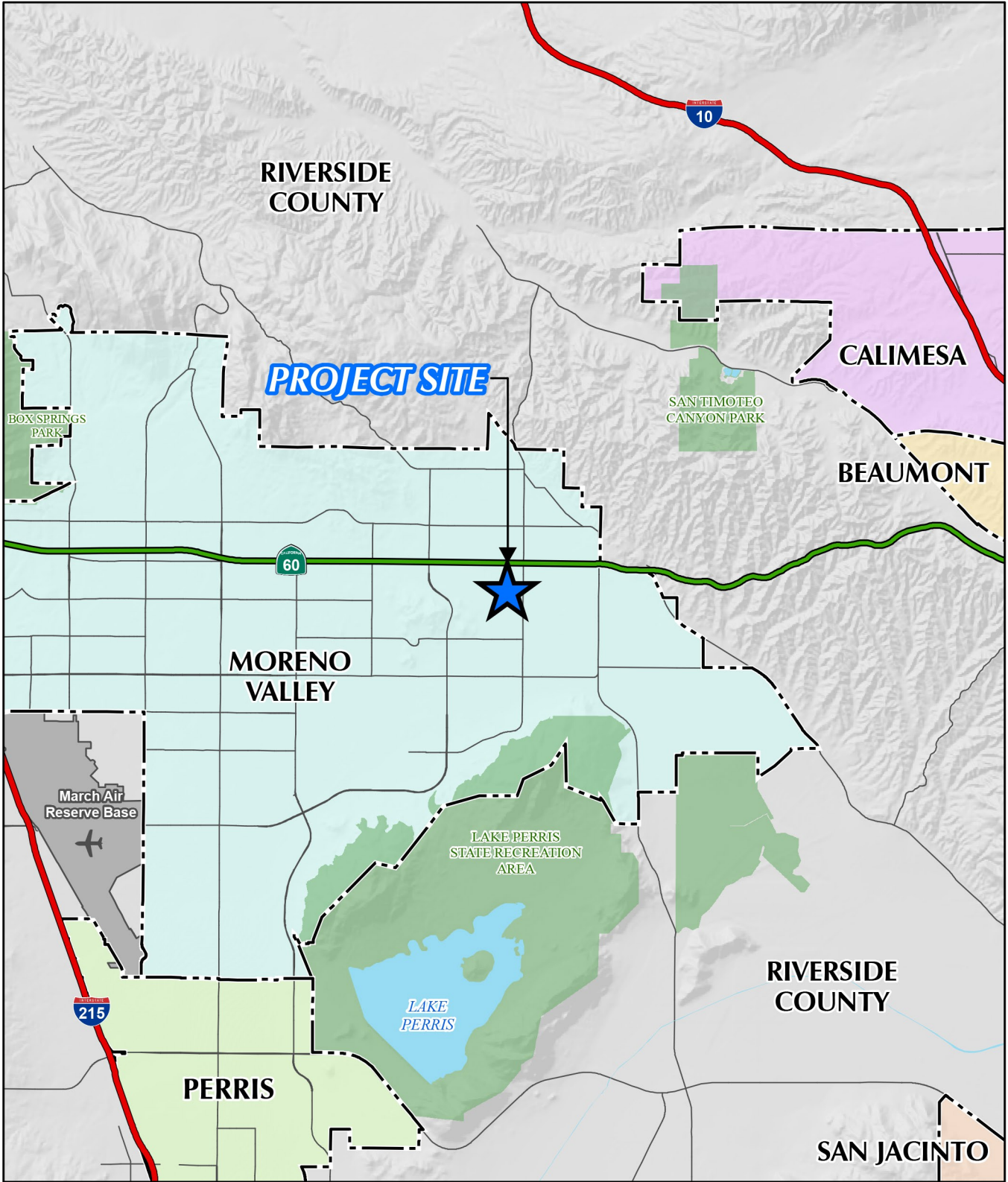
The Project evaluated in this EIR includes legislative and site development actions. The legislative actions entail a proposed General Plan Amendment (PEN19-0191) and Change of Zone (PEN19-0192). The general intent of the proposed legislative actions is to change the land use designation for the Project site from a residential category to an industrial category. The site development actions entail a proposed Plot Plan (PEN19-0193) and Tentative Parcel Map (PEN19-0234) to permit the development and operation of a light industrial building containing warehouse/storage space and supporting office space. The individual components of the Project are discussed below.

3.3.1 GENERAL PLAN AMENDMENT (PEN19-0191)

The proposed General Plan Amendment (GPA) would amend the City of Moreno Valley's General Plan Land Use Map to change the land use designation for all parcels within the Project site from "Residential: Max 2 du/ac (R2)" to "Business Park/Light Industrial (BP)." Refer to Figure 3-4, *Proposed General Plan Amendment (PEN19-0191)*. Pursuant to the City's General Plan, the BP land use designation generally provides for manufacturing, research and development, warehousing and distribution, as well as office and supporting commercial activities (Moreno Valley, 2006, p. 9-7).

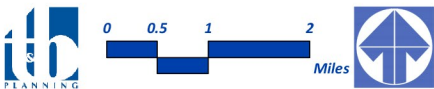
3.3.2 CHANGE OF ZONE (PEN19-0192)

The proposed Change of Zone would amend the City of Moreno Valley Zoning Map to change the zoning designation of the Project site from "Residential Agriculture 2 (RA2) District" with "Primary Animal Keeping Overlay Zone (PAKO)" to "Light Industrial (LI) District." Refer to Figure 3-5, *Proposed Change of Zone (PEN19-0192)*. Pursuant to the City's Zoning Ordinance, the LI land use designation generally provides for light manufacturing, light industrial, research and development, warehousing and distribution and multitenant industrial uses, as well as certain supporting administrative and professional offices and commercial uses on a limited basis (Moreno Valley, 2018).

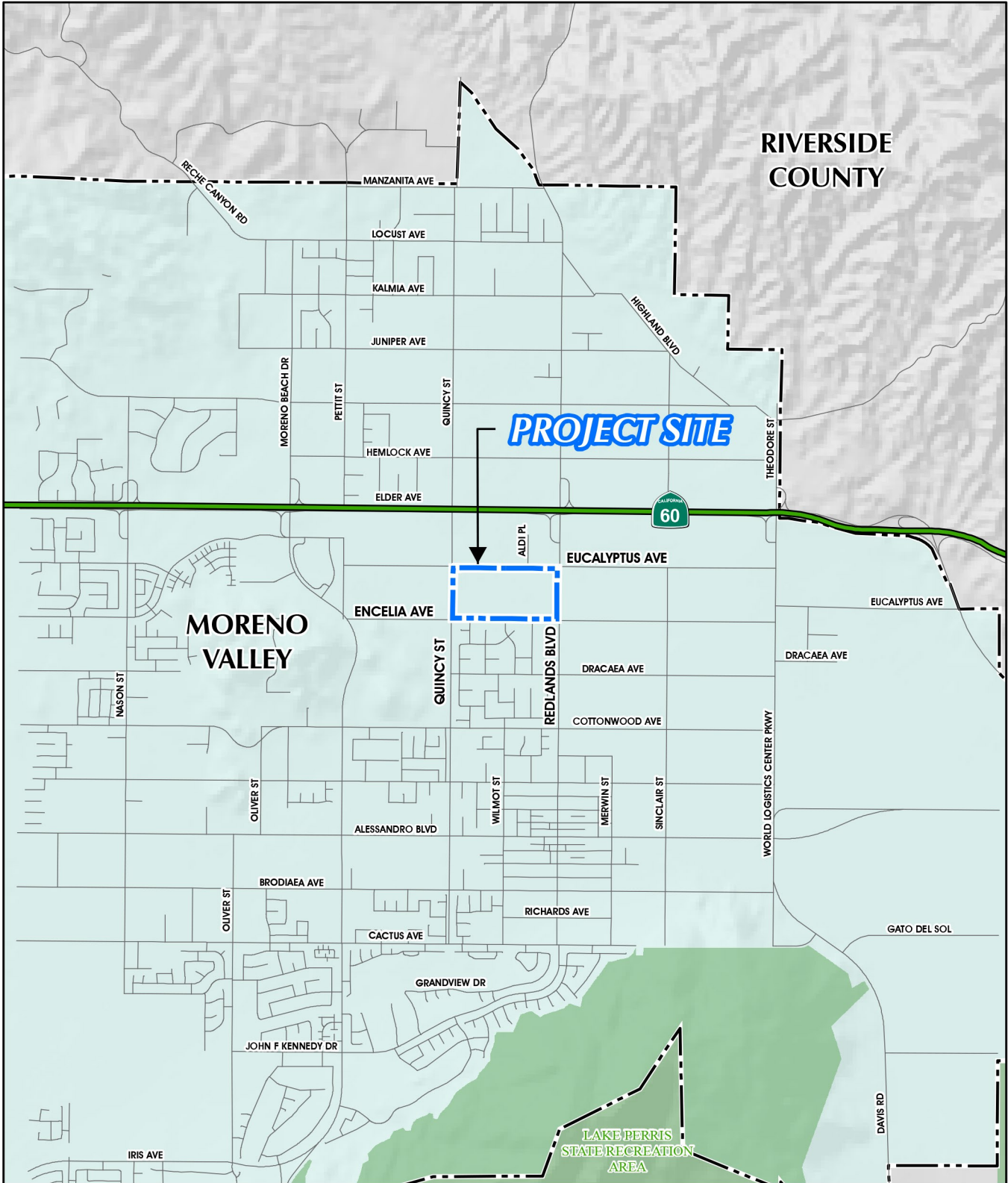


Source(s): ESRI, RCTLMA (2019)

Figure 3-1

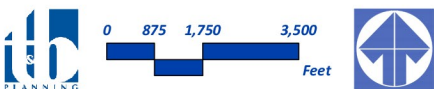


Regional Map

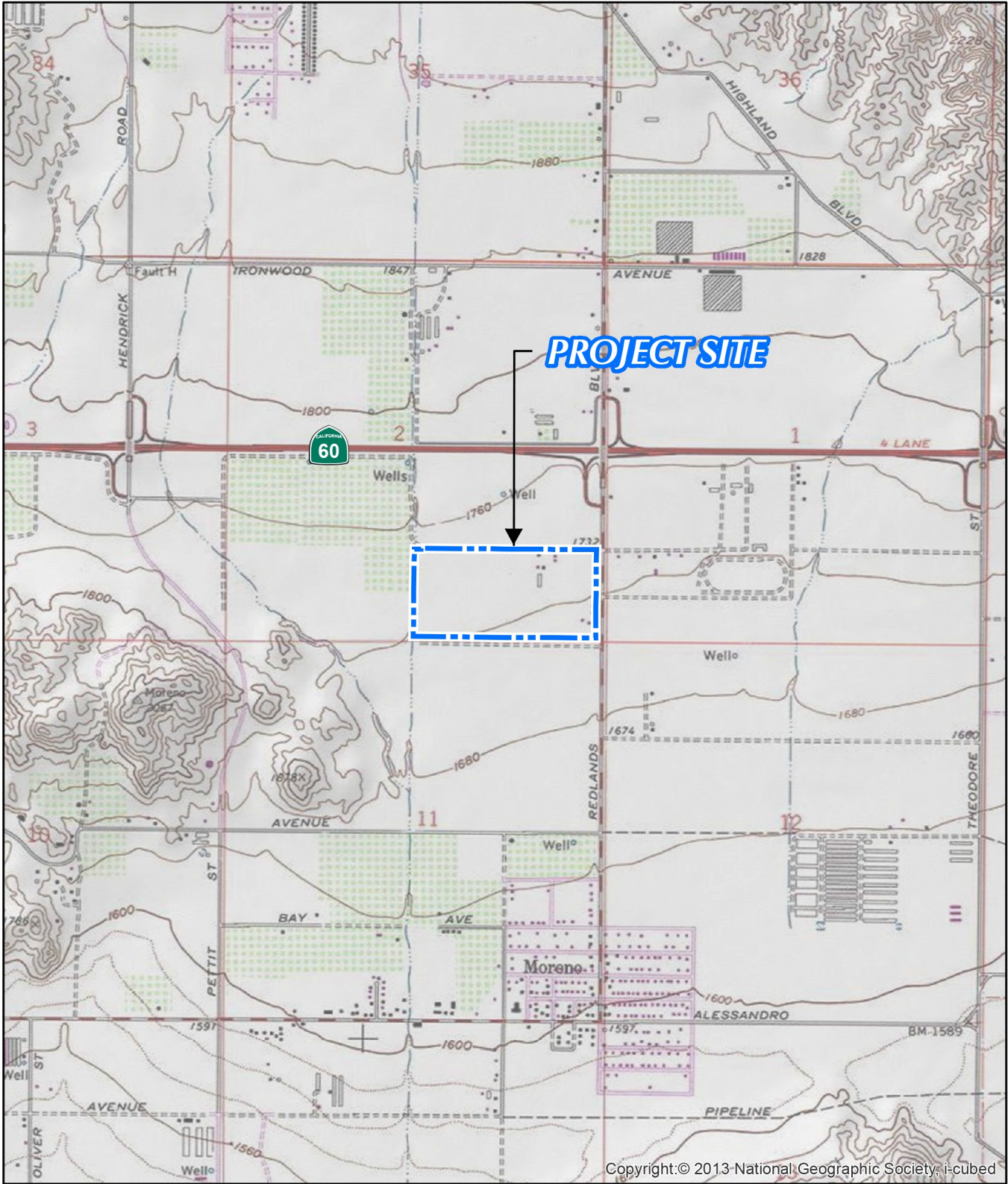


Source(s): ESRI, RCTLMA (2019)

Figure 3-2

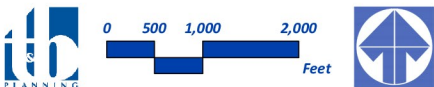


Vicinity Map

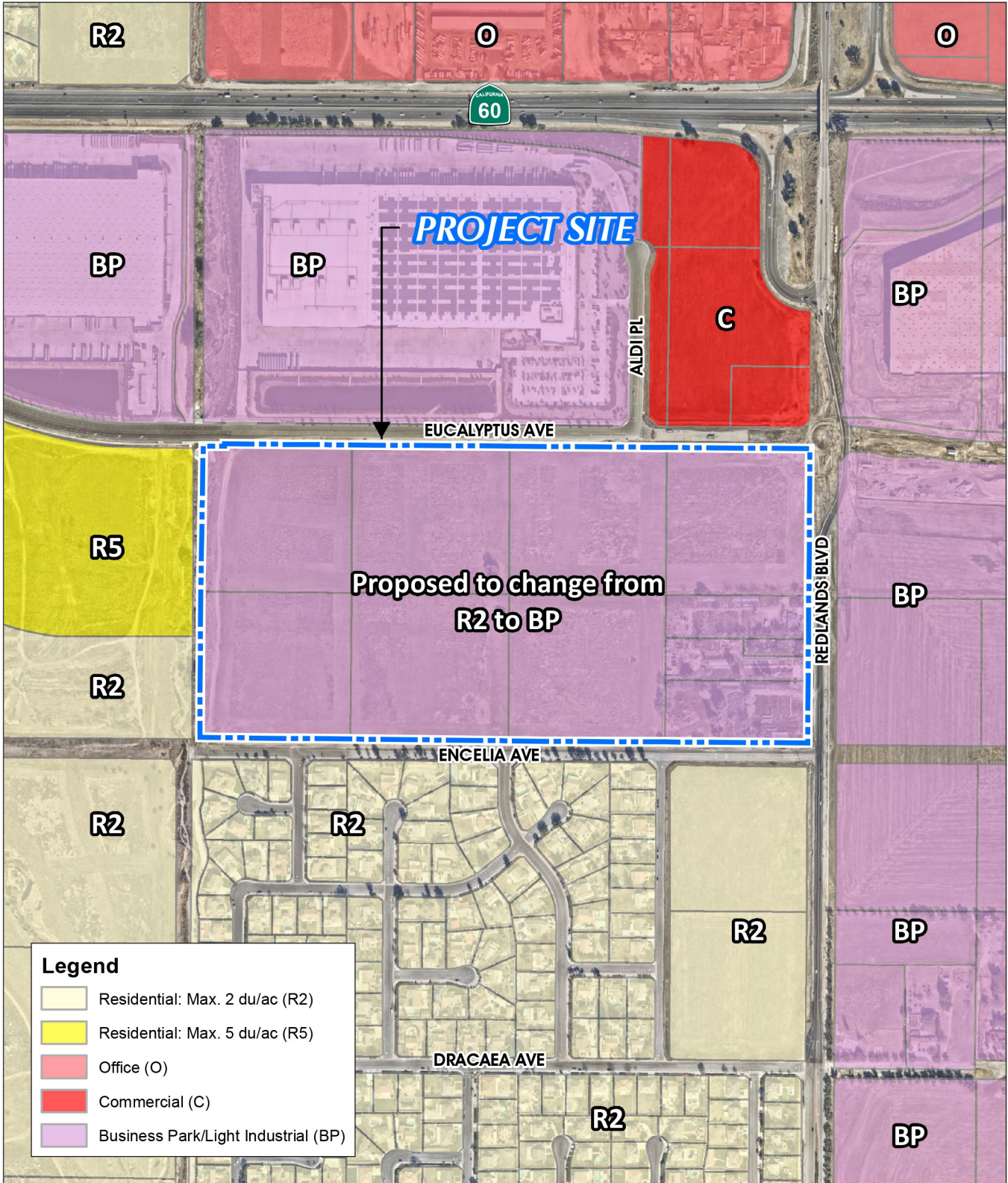


Source(s): USGS (2013)

Figure 3-3

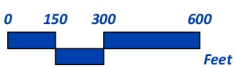


USGS Topographic Map

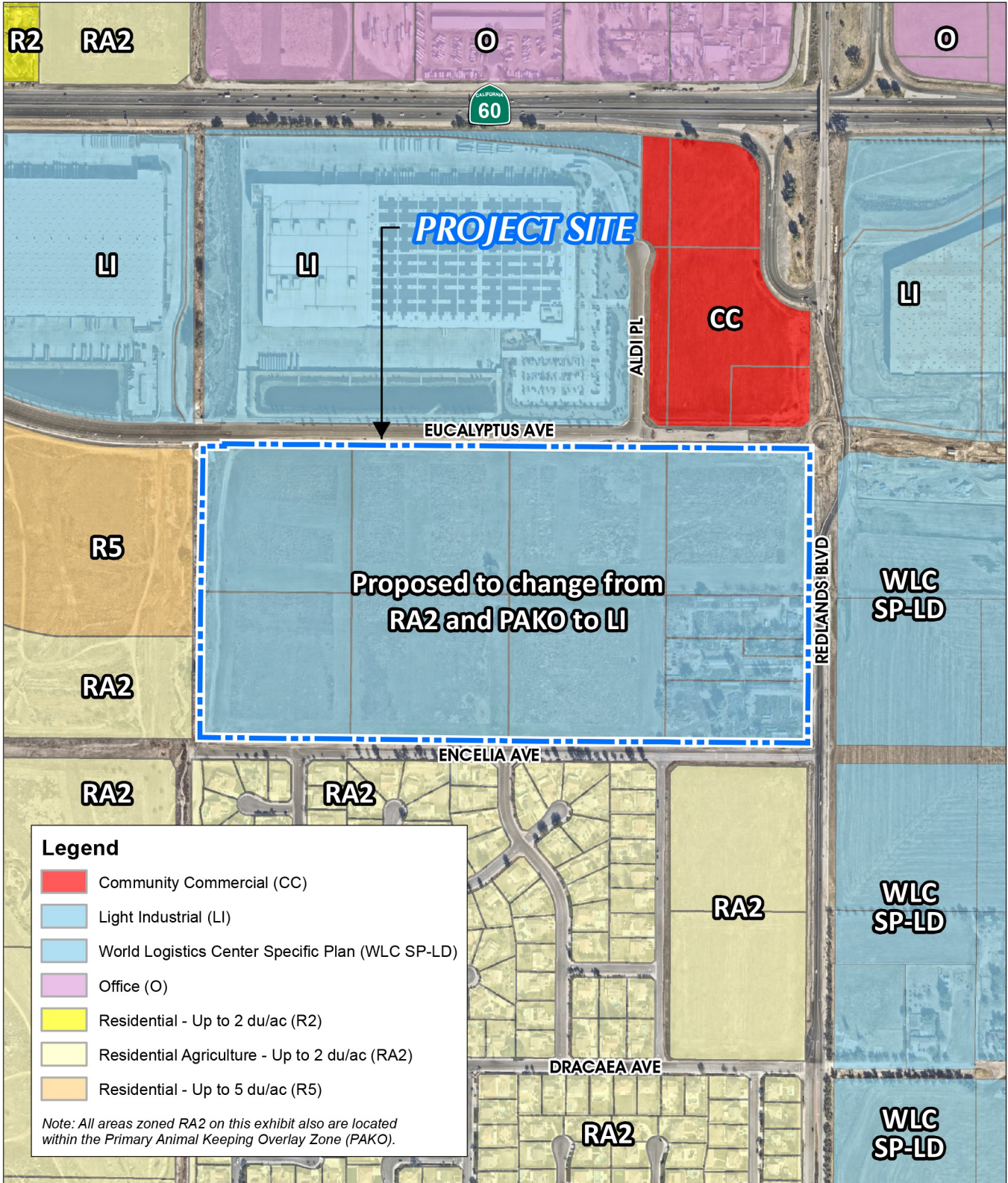


Source(s): City of Moreno Valley (2019), ESRI, Nearmap Imagery (2019), RCTLMA (2019)

Figure 3-4

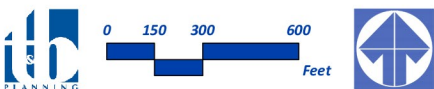


Proposed General Plan Amendment (PEN19-0191)



Source(s): City of Moreno Valley (2019), ESRI, Nearmap Imagery (2019), RCTLMA (2019)

Figure 3-5



Proposed Change of Zone (PEN19-0192)



3.3.3 PLOT PLAN (PEN19-0193)

The proposed Plot Plan specifies a development plan for the Project site that provides for the construction and operation of a light industrial building with approximately 1,328,853 s.f. of building floor area. The Plot Plan application depicts a layout of the building and associated physical design features, architectural design, and a landscaping plan, as described below. The Project design, which will ultimately include building components and systems to be shown on construction drawings (such as light fixtures, water fixtures, and heating, ventilation and air conditioning equipment), will be conditioned by the City of Moreno Valley to achieve Leadership in Energy and Environmental Design (LEED)-equivalent “Silver” certification for building core and shell.

A. Site Layout

The proposed site plan for the Project site is illustrated on Figure 3-6, *Proposed Plot Plan (PEN19-0193)*. The proposed building is designed as a rectangular-shaped building with its elongated sides oriented parallel to the Project site’s northern and southern boundaries. The proposed building would operate as a cross-dock warehouse with 104 loading docks and 110 truck trailer parking spaces within the truck court/loading area on the north side of the building and 121 loading docks and 128 truck trailer parking spaces within the truck court/loading area on the south side of the building. The truck court on the southern side of the building would be located approximately 205 feet north of the southern Project site boundary (and approximately 250 feet north of the Encelia Avenue centerline and approximately 300 feet north of the southern limit of the Encelia Avenue right-of-way). The truck courts/loading areas would be enclosed and screened from public viewing areas by 14-foot-tall solid screen walls. Passenger vehicle parking areas would be provided on the western and eastern sides of the building with a total of 607 on-site passenger vehicle parking spaces. Access to the Project site would be provided by two driveways from Eucalyptus Avenue, two driveways from Redlands Boulevard, and two driveways from Encelia Avenue. The western driveway from Eucalyptus Avenue would provide inbound/outbound access for passenger vehicles and trucks and the eastern driveway from Eucalyptus Avenue would be restricted to outbound right-turn truck traffic only. The northern driveway from Redlands Boulevard would provide right-in/right-out access only for passenger vehicles and the southern driveway from Redlands Boulevard would provide access for inbound and outbound passenger vehicles (right-in/right-out only) and inbound truck traffic. Onsite design features such as a pork-chop designed driveway, signage posted at the driveway exit, or other measures based on specifications provided by City staff would be installed at the southern driveway from Redlands Boulevard to prohibit outbound truck traffic. The proposed driveways to Encelia Avenue would be restricted to passenger vehicle traffic only; no heavy trucks would be permitted to enter/exit the site from the proposed Encelia Avenue driveways.

The Project Applicant is pursuing the Project on a speculative basis and the future occupant of the proposed building is unknown at this time. The Project Applicant expects that the proposed light industrial building would be occupied by a warehouse distribution/logistics operator and the proposed site design described in the preceding paragraph is intended to facilitate warehouse distribution/logistics business operations. Notwithstanding, there is the potential that the Project could be occupied in the future by a fulfillment/e-commerce use. As such, the EIR evaluates the potential effects of the Project being used by either warehouse distribution/logistics user or a fulfillment/e-commerce user. Notwithstanding the fact the scope of the EIR includes an analysis of the potential use of the Project site as by a fulfillment/e-commerce user, the City is only



considering the site plan for the warehouse/distribution user (refer to Figure 3-6) as part of PEN19-0193. However, in the event that the Project is occupied by a fulfillment/e-commerce use, it is anticipated that alterations to the proposed site plan could be approved administratively to facilitate fulfillment/e-commerce business operations without further environmental review since fulfillment/e-commerce operations are less reliant on heavy-duty truck deliveries than warehouse distribution/logistics operations. Use of the Project site for fulfillment/e-commerce business uses would eliminate the need for truck delivery loading/unloading and trailer parking on the southern side of the proposed building which means the 121 loading docks on the south-facing side of the building would be eliminated and the truck court with 128 truck trailer parking spaces would be replaced with up to 1,449 passenger vehicle parking spaces which although would require a larger paved parking area on the south side of the building and a re-configured water quality/detention basin compared to the proposed site plan, will have a less significant impact than a warehouse distribution/logistics user. Additionally, under the fulfillment/e-commerce scenario, only one additional driveway would be provided along Encelia Avenue bringing the total number of driveways along Encelia Avenue to only three. As with the proposed site plan, all traffic entering/exiting the Project site from Encelia Avenue would continue to be restricted to passenger vehicles under the fulfillment/e-commerce plan because the Project's driveways connecting with Encelia Avenue are not designed to accommodate trucks. Refer to Figure 3-7 for a conceptual site plan for use of the building by a fulfillment/e-commerce user. In light of the foregoing, it is anticipated that the City may approve the potential changes to the Project site plan that are needed to support a fulfillment/e-commerce user at the administrative level.

B. Architecture Plan

The proposed architecture plan provides a building with a maximum height of 48 feet above the finished floor elevation; however, the building would have a varied roofline and portions of the building would be less than 48 feet tall. The proposed building would be constructed of concrete tilt-up panels and low-reflective, blue glass. The proposed building's exterior color palette would be comprised of various shades of white, gray, and tan. Decorative building elements include panel reveals, parapets, mullions, and canopies are proposed at office entries. Architectural elevations for the proposed building are illustrated on Figure 3-8, *Proposed Architectural Elevations*.

In the event that the building is designed to accommodate a potential fulfillment/e-commerce occupant, the Project Applicant expects the architecture for the north, east, and west building faces to be the same as the proposed warehouse distribution/logistics plan (as described above), with only the architecture for the south building face changing to eliminate the loading docks (as described above). The conceptual architectural elevations for the fulfillment/e-commerce plan are shown on Figure 3-9. The building is expected to reach a height of 48 feet under the fulfillment/e-commerce scenario; however, mechanical equipment technologies used inside modern fulfillment/e-commerce buildings could necessitate a taller building that could be up to 100 feet tall. Conceptual architectural elevations for a potential fulfillment/e-commerce building that is up to 100 feet tall are shown on Figure 3-10.

C. Landscape Plan

All existing trees and other vegetation on the Project site are proposed to be removed and replaced with the plant material specified on the proposed landscape plan for the Project, which is illustrated on Figure 3-11.



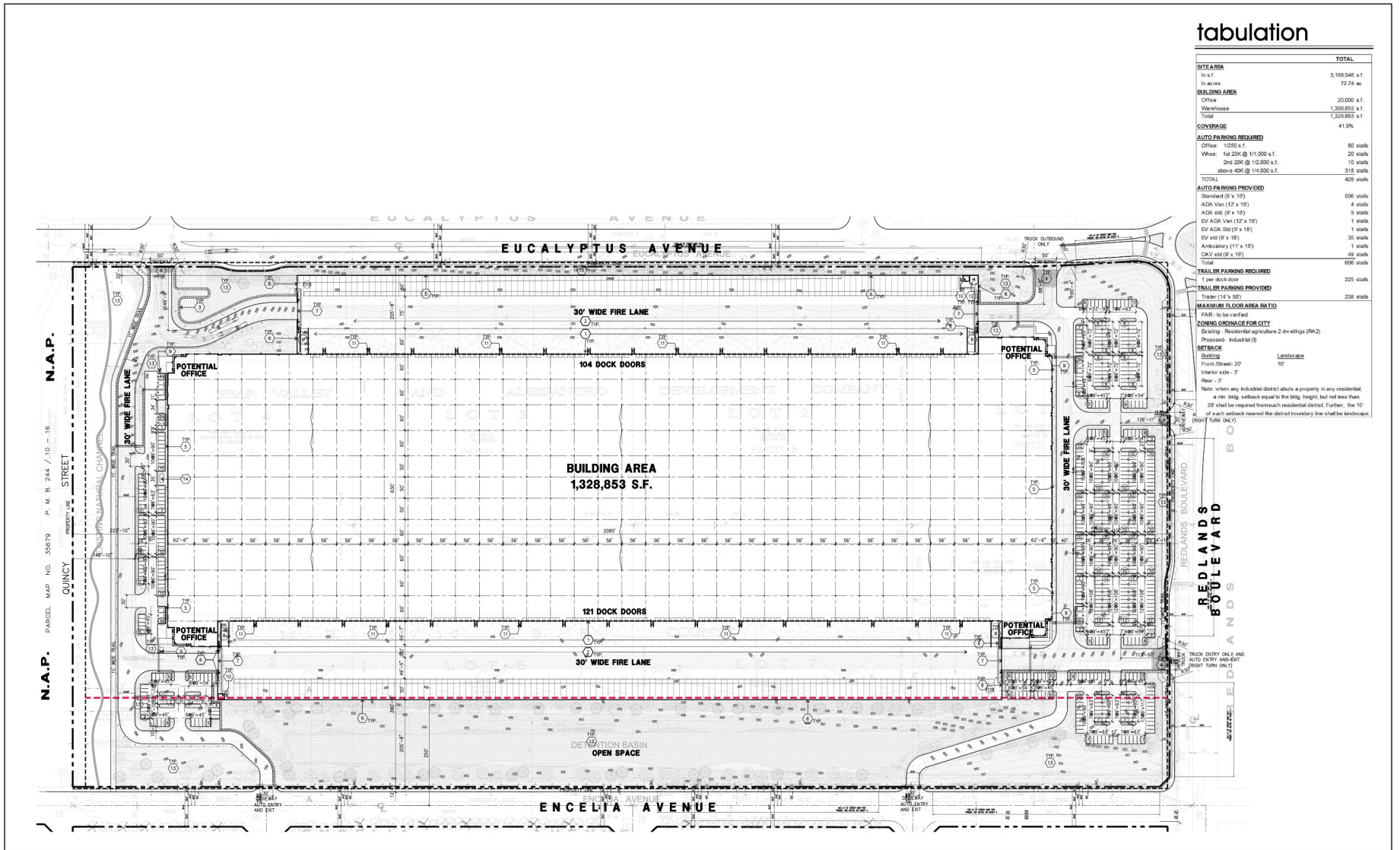
Proposed landscaping primarily would be ornamental in nature and would feature trees, shrubs, and drought-tolerant accent plants in addition to a variety of groundcovers. As shown on Figure 3-11, trees, shrubs, and groundcover are proposed along the Project site's frontages with Eucalyptus Avenue, Redlands Boulevard, Encelia Avenue, and along the western property boundary. Landscaping also would occur at building entries and in and around automobile parking areas. The water quality/detention basin that is proposed on the southern portion of the Project site would be planted with plant species selected for their ability to remove waterborne pollutants from stormwater runoff; trees would be planted along the perimeter of the basin to screen public views of the basin and, also, screen the truck court on the south side of the proposed building. Landscaped berms are proposed along the southern boundary of the Project site.

The conceptual landscape plan for the Project site under a fulfillment/e-commerce scenario is illustrated on Figure 3-11. The general landscape theme and plant palette would be identical between the proposed landscape plan (Figure 3-10) and the conceptual landscape plan for the fulfillment/e-commerce plan (Figure 3-11); however, the placement of plant materials would vary to accommodate the differences between the two site plans along the south side of the proposed building (as previously described in Subsection 3.3.3.A).

Prior to the issuance of a building permit to construct the proposed building shell, the Project Applicant would be required to submit final planting and irrigation plans to the City for review and approval. The plans are required to comply with Chapter 9.17 of the Moreno Valley Municipal Code, which establishes requirements for landscape design, automatic irrigation system design, and water-use efficiency (Moreno Valley, 2018, Chapter 9.17).

3.3.4 TENTATIVE PARCEL MAP (PEN19-0234)

Tentative Parcel Map (PEN19-0234) would consolidate the 11 parcels (APNs 488-340-002 through -012) that comprise the Project site into one (1) parcel to facilitate the implementation of the proposed Plot Plan, as described above. In addition, the proposed tentative parcel map provides for the dedication of public right-of-way to the City for Redlands Boulevard, Encelia Avenue, and Eucalyptus Avenue as well as the vacation of public right-of-way for a small section Redlands Boulevard that is no longer needed by the City and the vacation of an on-site paper street (unimproved) segment of Quincy Street.



Source(s): HPA (01-18-2021)

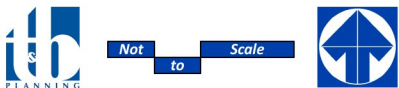
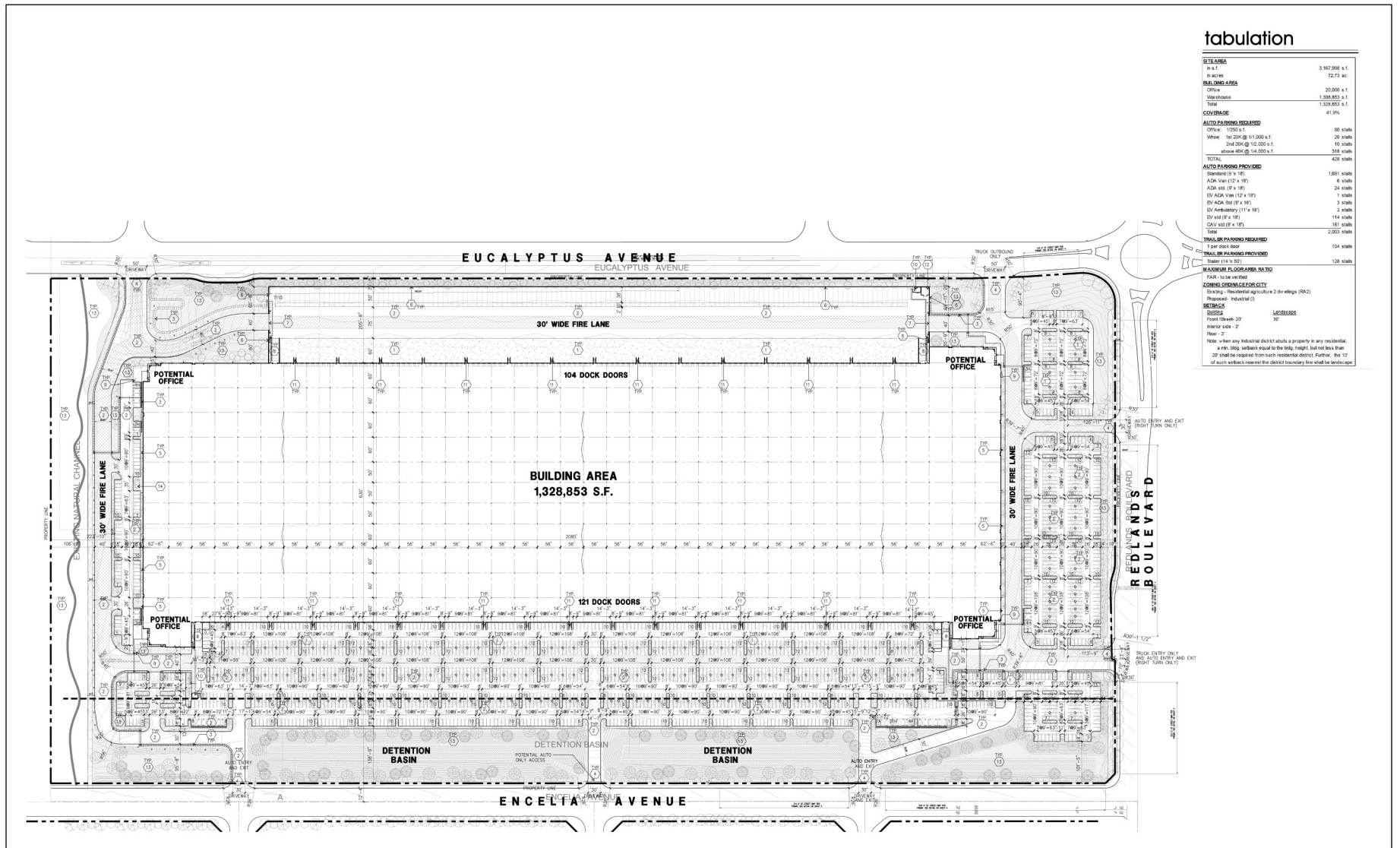


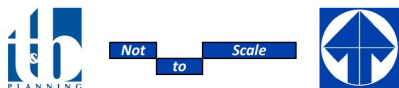
Figure 3-6

Proposed Plot Plan (PEN19-0193)



Source(s): HPA (01-18-2011)

Figure 3-7

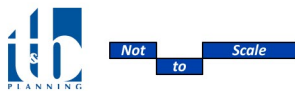


Conceptual Fulfillment/E-Commerce Site Plan



Source(s): HPA (03-04-2021)

Figure 3-8



Proposed Architectural Elevations



Source(s): HPA (03-04-2021)

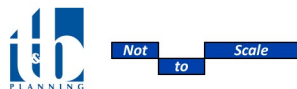
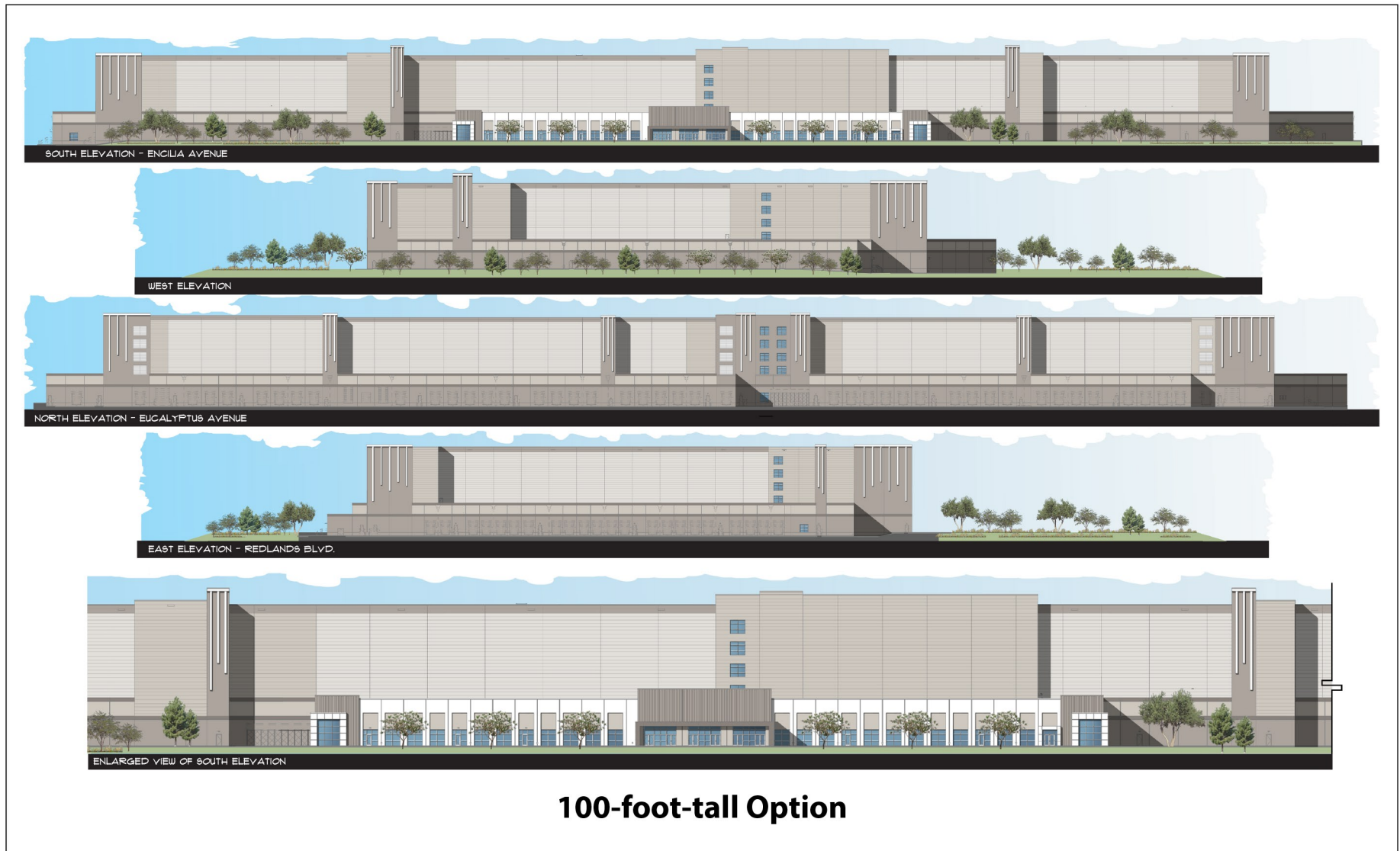


Figure 3-9
Conceptual Architectural Elevations for
Fulfillment/E-Commerce Plan



Source(s): HPA (03-09-2021)

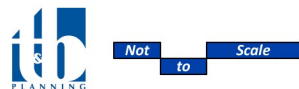
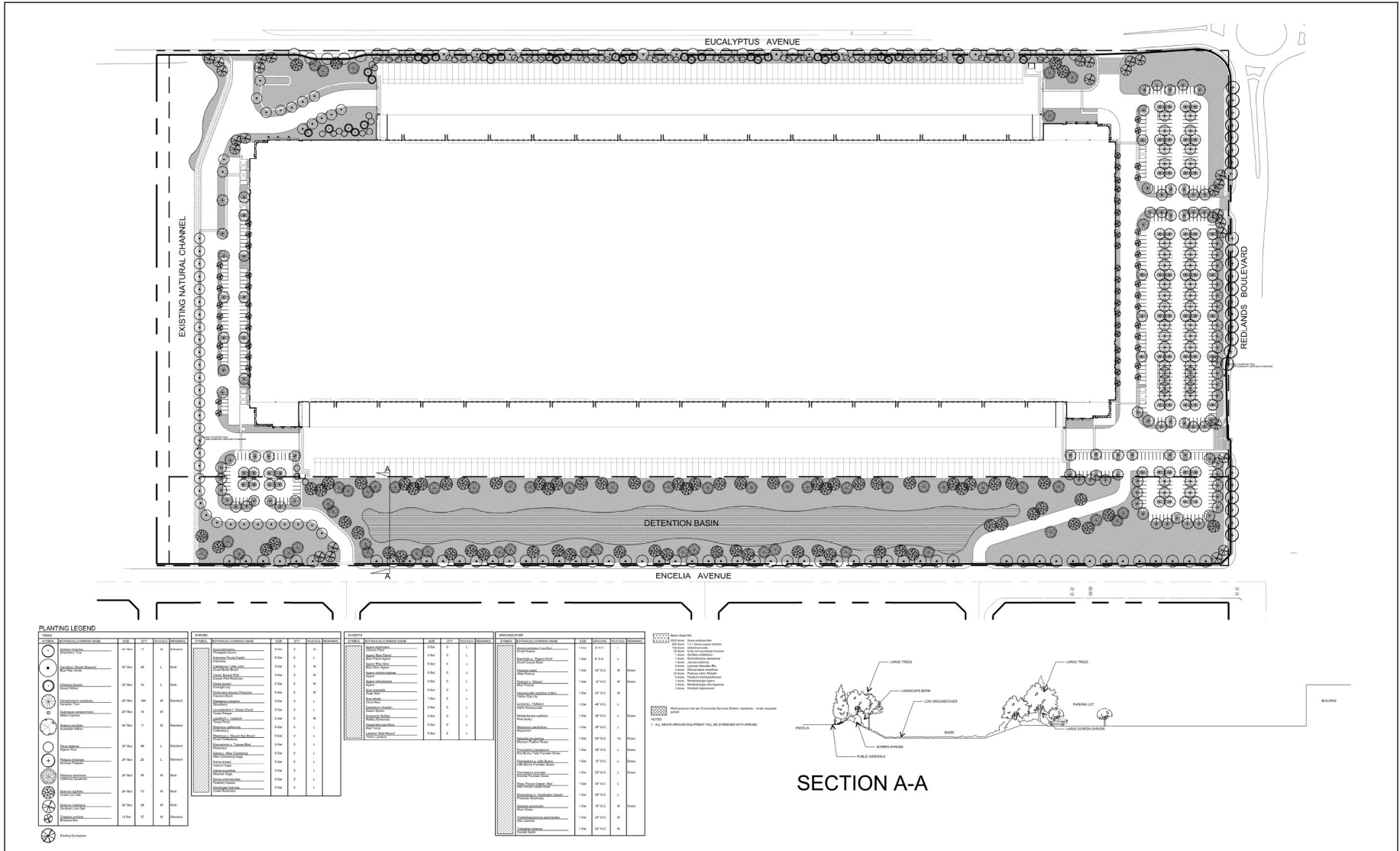
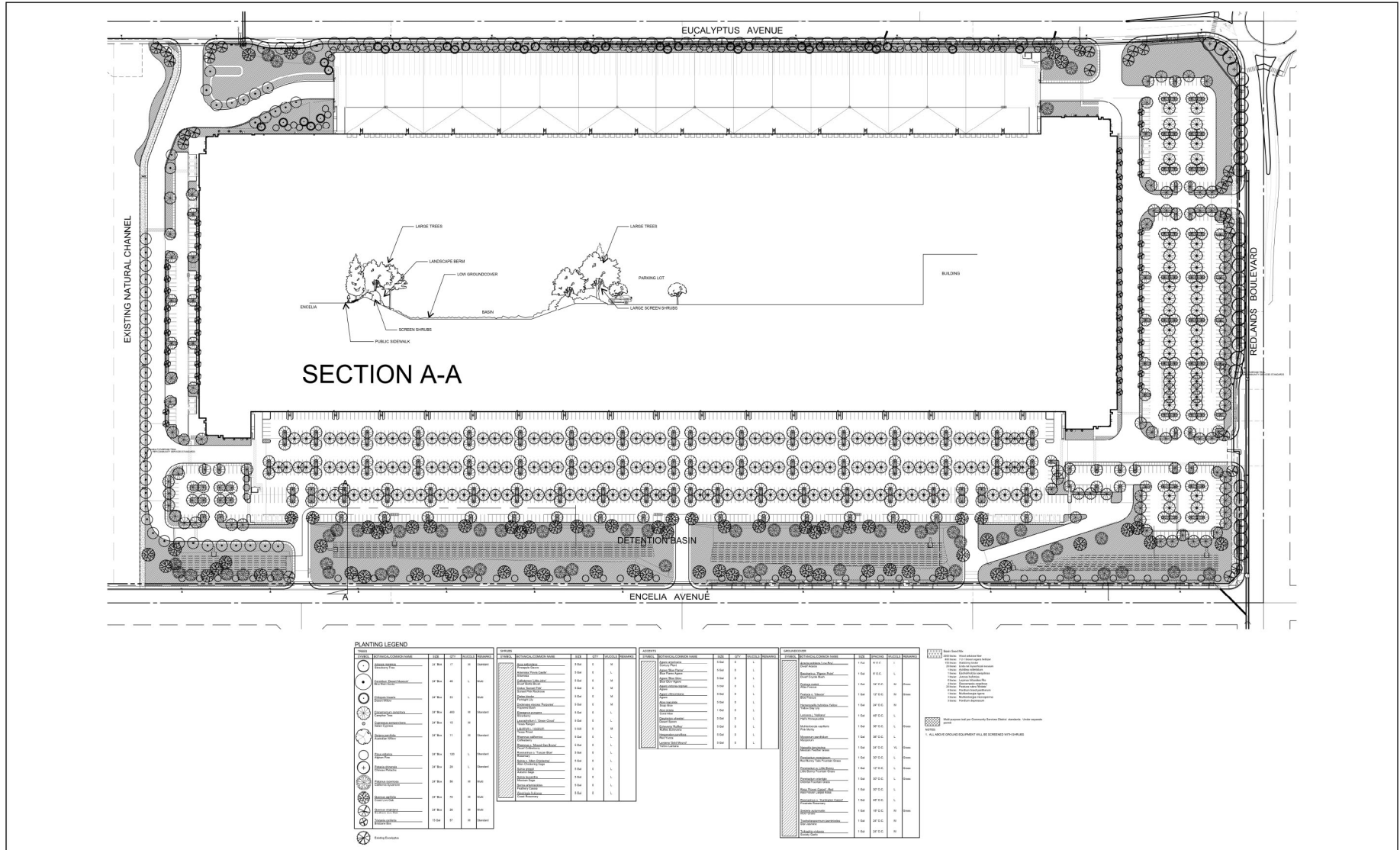


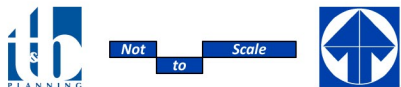
Figure 3-10
Conceptual Architectural Elevations for
Fulfillment/E-Commerce Plan





Source(s): Hunter Landscape (01-15-2021)

Figure 3-12



Conceptual Landscape Plan for Fulfillment/E-Commerce Plan



3.4 INFRASTRUCTURE IMPROVEMENTS

A. Public Road Improvements

The Project site abuts three (3) existing public streets: Eucalyptus Avenue to the north, Redlands Boulevard to the east, and Encelia Avenue to the south. As part of the Project's implementation, the Project Applicant would construct improvements to each of these streets as described below.

Eucalyptus Avenue

The southern half of Eucalyptus Avenue would be improved along the Project site frontage to provide: a 38-foot-wide paved vehicular travel way, curb and gutter, an approximately 6.5-foot-wide sidewalk, and an approximately 5-foot-wide landscaped parkway within the public right-of-way. The proposed improvements to Eucalyptus Avenue are consistent with the street's "Arterial" classification established by the Moreno Valley General Plan Circulation Plan (Moreno Valley, 2006, Figure 9-1 and Figure 9-3).

Redlands Boulevard

Redlands Boulevard would be improved along the Project site frontage to provide a 43-foot-wide paved vehicular travel way (including raised median), curb and gutter, an approximately 6.5-foot-wide sidewalk, and an approximately 5-foot-wide landscaped parkway within the public right-of-way on both sides of the street. The proposed improvements to Redlands Boulevard are consistent with the street's "Divided Arterial – 4 lane" classification established by the Moreno Valley General Plan Circulation Plan (Moreno Valley, 2006, Figure 9-1 and Figure 9-3).

Encelia Avenue

The northern half of Encelia Avenue would be improved along the Project site's frontage to provide a 32-foot-wide paved vehicular travel way, curb and gutter, an approximately 6.5-foot-wide sidewalk, and an approximately 5-foot-wide landscaped parkway within the public right-of-way. As a Project design feature, the entire width of the Encelia Avenue vehicular travel way – the 32-foot-wide travel way that would be installed on the north side of the street as part of the Project plus the existing travel way on the southern half of the street – would be paved with rubberized asphalt concrete to minimize roadway noise. The proposed improvements to Encelia Avenue are consistent with the road's "Minor Arterial" classification established by the Moreno Valley General Plan Circulation Plan (Moreno Valley, 2006, Figure 9-1 and Figure 9-3). In addition, a traffic signal would be installed at the Encelia Avenue and Redlands Boulevard intersection.

B. Non-Vehicular Circulation Improvements

In addition to the public street improvements described above, the Project Applicant would construct the following non-vehicular circulation improvements as part of the Project:

- An approximately 11-foot-wide decomposed granite trail would be installed abutting the west side of the Redlands Boulevard public right-of-way. The trail design would conform to City of Moreno Valley Standard Plan MVGF-610H-0 for a "Multi-Use Trail Adjacent to Street with Sidewalk."



- A bus stop turnout is proposed on the Project site on the west side of Redlands Boulevard, north of Encelia Avenue. The precise location of the bus stop turnout will be determined in consultation between the Project Applicant and the Riverside Transit Agency (RTA).
- A bus stop turnout is proposed on the Project site along the south side of Eucalyptus Avenue, near the northwest corner of the Project site. The precise location of the bus stop turnout will be determined in consultation between the Project Applicant and the RTA.
- An approximately 16.5-foot-wide combination trail and sidewalk would be installed along the western Project site boundary abutting the existing Quincy Channel.

C. Water and Sewer Infrastructure Improvements

The Project's on-site water system would connect to an existing 24-inch-diameter water main beneath Eucalyptus Avenue for domestic (interior), irrigation (exterior), and fire protection water service. All existing water wells on the Project site would be capped and abandoned as part of Project construction.

The Project's proposed on-site gravity sewer system would connect to an existing 12-inch-diameter sewer main beneath Encelia Avenue. All proposed wastewater conveyance facilities installed as part of the proposed Project are required to be designed and constructed in accordance with City of Moreno Valley and EMWD standards. All existing septic systems and leach fields located on the Project site would be removed as part of Project construction.

Figure 3-12, *Proposed Utility Plan*, illustrates the Project's proposed water and wastewater conveyance system.

The water and wastewater infrastructure improvements described above and illustrated on Figure 3-12 would remain unchanged in the event that the Project site accommodates a fulfillment/e-commerce user as conceptually shown in Figure 3-7.

D. Stormwater Drainage Infrastructure Improvements

As shown on Figure 3-12, the Project's proposed stormwater drainage system consists of a network of on-site catch basins and underground storm drain pipes to capture and convey storm water runoff from across the Project site to a water quality/detention basin located on the southern portion of the Project site. The system is designed to collect, treat, and temporarily detain on-site stormwater runoff before discharging treated flows off-site. Specifically, "first flush" flows (i.e., typically the first 3/4-inch of initial surface runoff after a rainstorm, which contains the highest proportion of waterborne pollution) would be diverted to the water quality/detention basin for treatment. During peak storm events, the basin also would temporarily detain stormwater runoff on-site and would control the release of stormwater flows from the Project site. From the water quality/detention basin, stormwater runoff flows would be discharged to a proposed on-site private underground storm drain line that would extend off-site from the southeastern corner of the Project site and connect to the public storm drain line beneath Redlands Boulevard (Line F-2 from the Riverside County Flood Control and Water Conservation District [RCFCWCD] Moreno Master Drainage Plan). Under existing conditions, Line F-2 is a 60-inch-diameter pipe beneath Redlands Boulevard that terminates approximately



350 feet south of Eucalyptus Avenue. The Project provides for the following improvements to Line F-2: 1) replacement of a segment of the existing 60-inch-diameter storm drain pipe beneath Redlands Boulevard that abuts the northeast corner of Project site with a new storm drain pipe that extends to Encelia Avenue and that is sized per the Moreno Master Drainage Plan (varying in diameter between 72-78 inches along the Project site frontage); and 2) construction of a new storm drain line segment between Encelia Avenue and Dracaea Avenue that is sized per the Moreno Master Drainage Plan (78-inch-diameter). All improvements to Line F-2 would occur within the existing paved Redlands Boulevard public right-of-way.

In the event that the Project site accommodates a fulfillment/e-commerce user as conceptually shown in Figure 3-7, the changes to the site plan at the south side of the Project site would require modifications to the design of the proposed water quality/detention basin and the addition of an underground water quality/detention basin beneath the parking area located to the south side of the building. Refer to Figure 3-13, *Conceptual Stormwater Drainage Plan for Fulfillment/E-Commerce Plan*. Despite the changes to the design of the water quality/detention basin, the overall function and performance of the on-site stormwater drainage system, including its flow patterns and discharge points, would be substantially similar between the proposed site plan for a warehouse distribution/logistics operator and the conceptual fulfillment/e-commerce site plan.

E. Dry Utilities

The Project would entail the removal of power poles along the east side of Redlands Boulevard. The existing above-ground electric transmission lines suspended on the poles would be undergrounded as part of the Project's construction. The removal of the power poles and the undergrounding of the transmission lines would be performed in coordination with Southern California Edison. The Project would install an MVU conduit system along the Project's frontage with Encelia Avenue, which would provide electrical services to the Project. Existing fiber and copper facilities beneath Redlands Boulevard, Eucalyptus Avenue, and Encelia Avenue would provide telecommunications services to the Project. Existing aerial facilities beneath Redlands Boulevard, Encelia Avenue, and Eucalyptus Avenue would provide cable service to the Project.

3.5 PROJECT CONSTRUCTION CHARACTERISTICS

The Project Applicant anticipates that the Project's construction process will span a length of approximately 19 months. The estimated Project construction schedule, organized by construction stage, is summarized in Table 3-1, *Estimated Construction Schedule*. For purposes of analysis in this EIR, construction is assumed to commence in June 2021 and finish in December 2022.

Construction workers would travel to the site by passenger vehicle and materials deliveries would occur by medium- and heavy-duty trucks. Construction equipment is conservatively expected to operate on the Project site up to eight hours per day, six days per week. Even though construction activities are permitted to occur between 7:00 a.m. to 7:00 p.m. on Mondays through Fridays, and 8:00 a.m. to 4:00 p.m. on Saturdays pursuant to the Moreno Valley Municipal Code (Section 8.14.040(e)), construction equipment is not in continuous use and some pieces of equipment are used only periodically throughout a typical day of construction. Thus, eight hours of daily use per piece of equipment is a conservative and reasonable assumption. The City of Moreno Valley allows nighttime construction activities only upon special authorization from City staff, as specified



Table 3-1 Estimated Construction Schedule

Phase Name	Start Date	End Date	Days
Demolition	06/01/2021	07/12/2021	30
Site Preparation	07/13/2021	08/16/2021	25
Pile Driving	07/13/2021	08/16/2021	25
Grading	08/17/2021	09/27/2021	30
Building Construction	09/28/2021	12/26/2022	325
Paving	10/18/2022	12/26/2022	50*
Architectural Coating	07/12/2022	12/26/2022	120

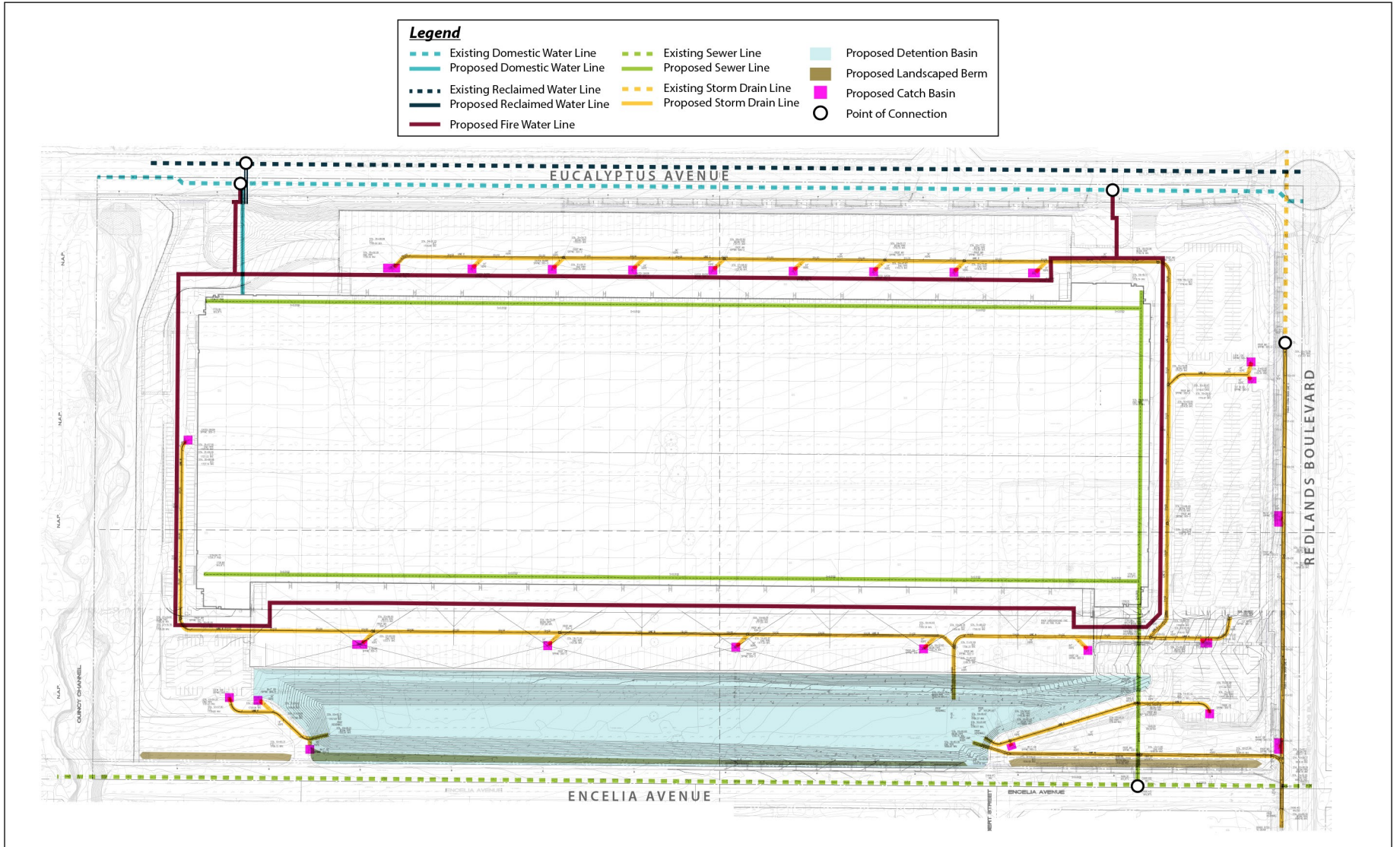
Source: (Urban Crossroads, 2020a, Table 3-2; Urban Crossroads, 2020b, Table 3-2)

*The analysis in this EIR of construction-related effects (e.g., air pollutant emissions, noise) conservatively assumes that all areas on the Project site not covered by the building are paved and, thus, overstates the amount of on-site paving that would actually occur. Accordingly, although the proposed warehouse distribution/logistics site plan would have a smaller parking area and would install less paving than the conceptual fulfillment/e-commerce site plan, both plans are evaluated herein as requiring the same amount of paving.

in Moreno Valley Municipal Code Sections 8.14.040(e) and 11.80.030(D)(7). Because Project construction would include activities that have the potential to occur at night (i.e., concrete pouring, which benefits from air temperatures that are lower than those that occur during the day), the analysis in this EIR conservatively assumes nighttime concrete pouring would occur during the course of Project construction.

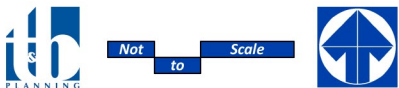
As shown on Figure 3-14, *Proposed Grading Plan*, the Project would result in approximately 418,910 cubic yards of cut and 418,726 cubic yards of fill. Based on the expected shrinkage and compaction of on-site soils, approximately 184 cubic yards of soil materials would be required to be exported from the Project site. When grading is complete, the highest point of the Project site would be located at its northwest corner (approximately 1,755 feet above mean sea level [amsl]) and the lowest point would be located at the southeast corner (approximately 1,711 feet amsl). The Project’s grading concept utilizes manufactured slopes and retaining walls at different areas of the Project site; manufactured slopes would be constructed at a maximum incline of 2:1 and retaining walls would not exceed the height allowable by the Moreno Valley Municipal Code. Proposed retaining walls would be provided along the northern portion of the Project site, which would enable the truck court on the north side of the proposed building to be mostly sunk below the elevation of Eucalyptus Avenue, thereby reducing the visibility of the truck court/loading area. The Project’s grading concept also would require the installation of a sheet pile wall and a retaining wall along the western Project site boundary in order to avoid disturbances to the existing Quincy Channel.

In the event the Project is occupied by a fulfillment/e-commerce business, the proposed site plan would be modified to eliminate the loading docks/truck court and to provide additional passenger vehicle parking along the south side of the proposed building and to provide one additional driveway along Encelia Avenue (as previously described in Subsection 3.3.3.A). These changes to the site plan would require modifications to grading earthwork totals; 430,465 cubic yards of cut and 430,930 cubic yards of cut would be required, resulting in 465 cubic yards of import to the Project site. Finished grades and the locations and heights of retaining walls and sheet pile walls would be similar between the proposed site plan for a warehouse distribution/logistics operator and the conceptual site plan for a fulfillment/e-commerce operator. The conceptual grading plan for the fulfillment/e-commerce site plan is illustrated on Figure 3-15.

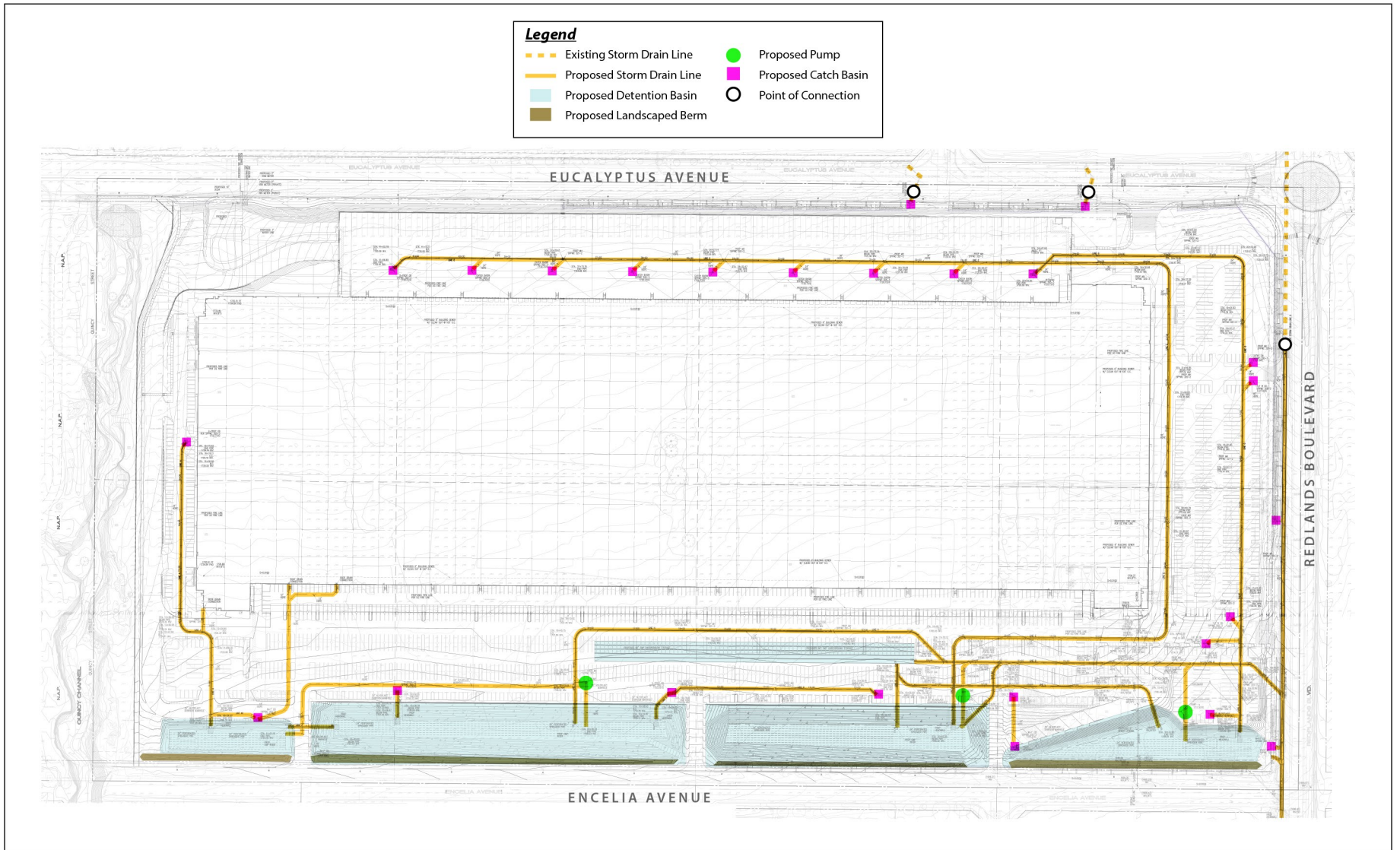


Source(s): Thienes Engineering, Inc. (01-18-2021)

Figure 3-13

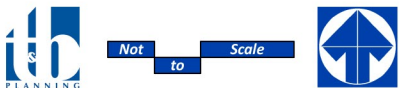


Proposed Utility Plan

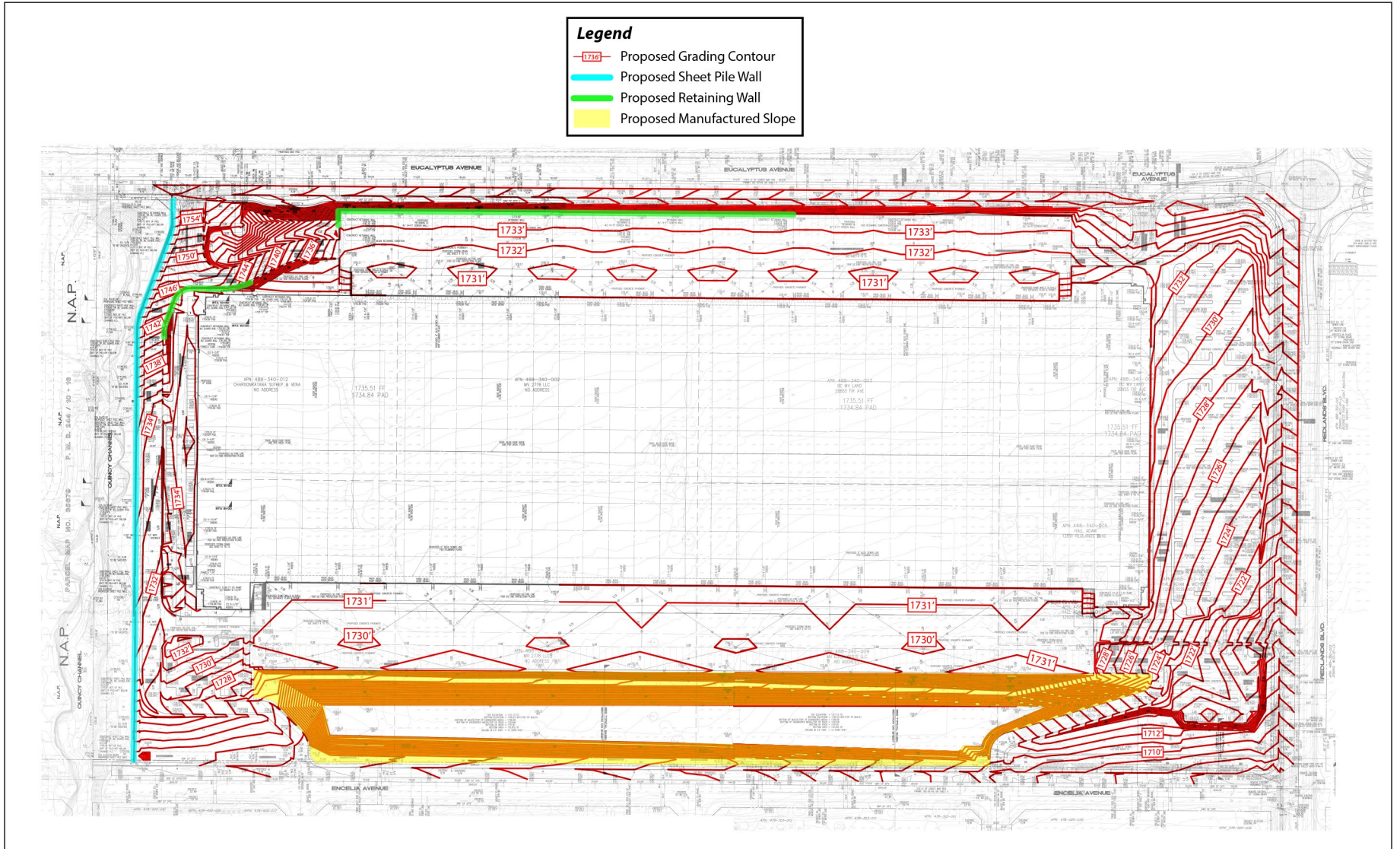


Source(s): Thienes Engineering, Inc. (01-18-2021)

Figure 3-14

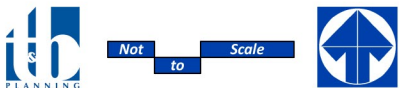


Conceptual Stormwater Drainage Plan for Fulfillment/E-Commerce Plan

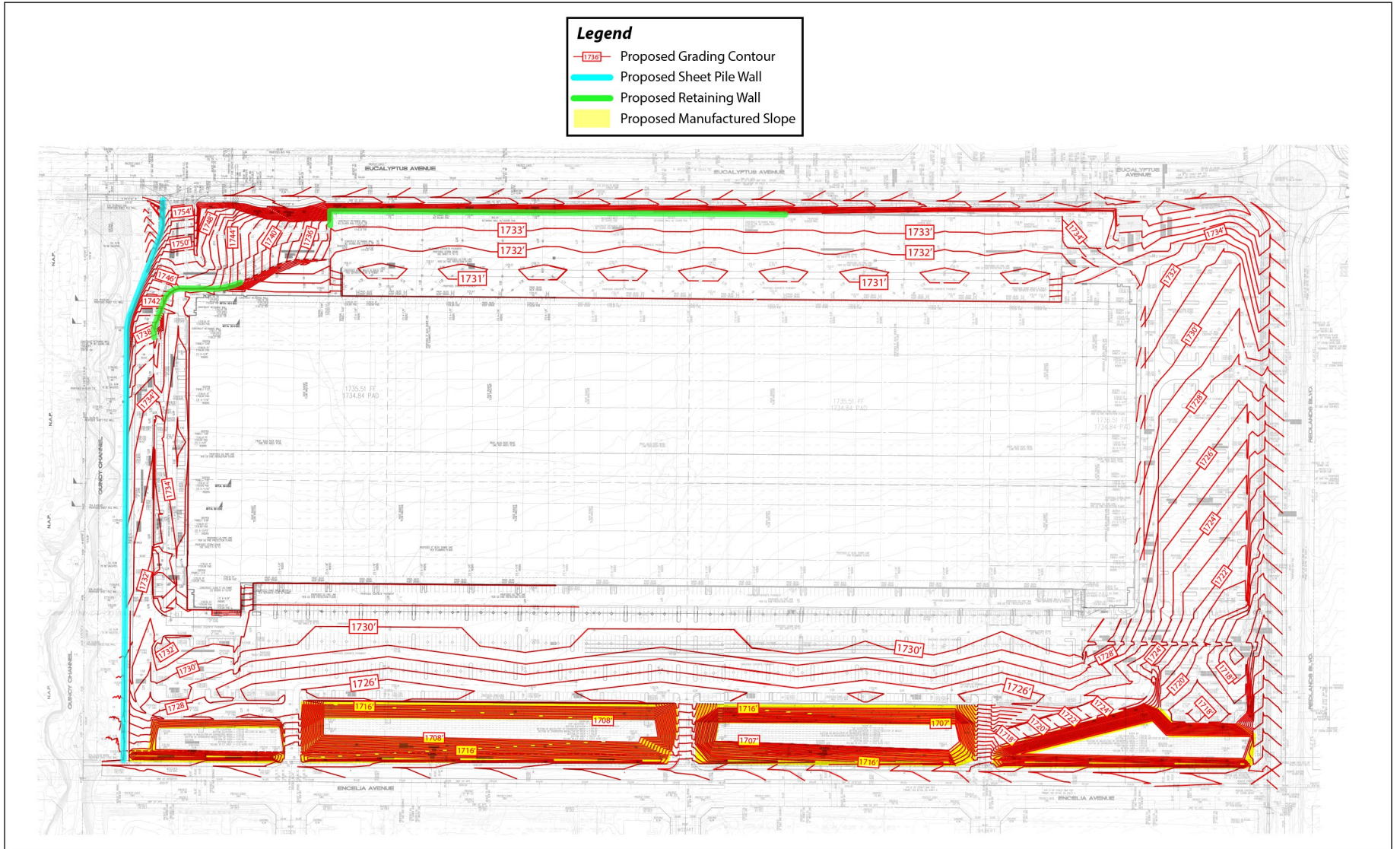


Source(s): Thienes Engineering, Inc. (01-18-2021)

Figure 3-15

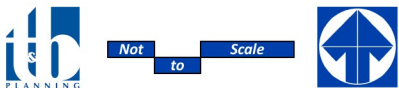


Proposed Grading Plan



Source(s): Thienes Engineering, Inc. (01-18-2021)

Figure 3-16



Conceptual Grading Plan for Fulfillment/E-Commerce Plan



The composition of the construction equipment fleet that the Project Applicant intends to use to construct the Project, which also is used for purposes of analysis is in this EIR, is summarized in Table 3-2, *Estimated Construction Equipment Fleet*. As a Project design feature during the “Pile Driving” phase of Project construction, the Project will use only non-impact pile driving equipment, such as an ABI drill rig. The construction equipment fleet would be identical whether the proposed site plan for a warehouse distribution/logistics operator and the conceptual site plan for a fulfillment/e-commerce operator were to be built.

Table 3-2 Estimated Construction Equipment Fleet

Phase Name	Equipment	Amount	Hours Per Day
Demolition	Concrete/Industrial Saws	1	8
	Excavators	3	8
	Rubber Tired Dozers	2	8
Site Preparation	Crawler Tractors	4	8
	Rubber Tired Dozers	3	8
Pile Driving	Bore/Drill Rigs	1	8
	Cranes	1	8
	Forklifts	1	8
Grading	Crawler Tractors	2	8
	Excavators	2	8
	Graders	1	8
	Rubber Tired Dozers	1	8
	Scrapers	2	8
Building Construction	Cranes	1	8
	Crawler Tractors	3	8
	Forklifts	3	8
	Generator Sets	1	8
	Welders	3	8
Paving	Pavers	2	8
	Paving Equipment	2	8
	Rollers	2	8
Architectural Coating	Air Compressors	1	8

Source: (Urban Crossroads, 2020a, Table 3-3; Urban Crossroads, 2020b, Table 3-3)

3.6 PROJECT OPERATIONAL CHARACTERISTICS

The future occupant(s) of the Project’s proposed light industrial building is/are currently unknown. The Project Applicant expects that the building would be occupied by either warehouse distribution/logistics operator(s) or fulfillment/e-commerce businesses and that up to 50,000 s.f. of the building could be used as cold storage (chilled, refrigerated, or freezer warehouse space). In the event the proposed building includes cold storage, the loading docks for trucks serving the refrigerated warehouse space – trucks that are fitted with transport



refrigeration units, TRUs – would be located on the north side of the building only. The Project Applicant estimates that the Project could support 1,000 employees if used for warehouse distribution/logistics and 2,000 employees if used for fulfillment/e-commerce. For purposes of evaluation in this EIR, it is assumed that the proposed building would be operational 24 hours per day, seven days per week, with exterior loading and parking areas illuminated at night. Lighting would be subject to compliance with Moreno Valley Municipal Code Section 9.08.100, which states that all outdoor lighting associated with nonresidential uses shall be fully shielded and directed away from surrounding residential uses to reduce glare and light trespass, and shall not exceed one-quarter-foot-candle minimum maintained lighting measured from within five feet of any property line.

The proposed building is designed such that business operations would be conducted within the enclosed buildings, with the exception of traffic movement, parking, and the loading and unloading of tractor trailers at designated loading bays. As a practical matter, dock doors on industrial buildings are not occupied by a truck at all times of the day. There are typically many more dock door positions on industrial buildings than are needed for receiving and shipping volumes. The dock doors that are in use at any given time are usually selected based on interior building operation efficiencies. In other words, trucks ideally dock in the position closest to where the goods to be carried by the truck are inside the building. As a result, a number of dock door positions are frequently inactive throughout the day.

During operation, employees, visitors, and vehicles hauling goods will travel to and from the Project site on a daily basis. Project operations are calculated by a traffic study to generate approximately 2,321 vehicle trips per day, including 1,436 passenger vehicle trips and 885 truck trips for a warehouse distribution/logistics use or 6,607 vehicle trips per day, including 5,750 passenger vehicle trips and 857 truck trips for a fulfillment/e-commerce use. Pursuant to State law, on-road diesel-fueled trucks are required to comply with various air quality and greenhouse gas emission standards, including but not limited to the type of fuel used, engine model year stipulations, aerodynamic features, and idling time restrictions. Compliance with State law is mandatory and inspections of on-road diesel trucks subject to applicable State laws are conducted by the California Air Resources Board (CARB).

Project operations are expected to demand approximately: 166,540 gallons of water per day; 121,890 gallons of wastewater treatment per day; 1,905,300 kilowatt hours (kWh) of electricity per year; and up to 2,823,560 kBTU of natural gas per year (EMWD, 2006, Table 1; Urban Crossroads, 2020g, Table 4-17; Urban Crossroads, 2020h, Table 4-17).

3.7 CITY REVIEW PROCESS

The City of Moreno Valley has primary approval responsibility for the proposed Project. As such, the City serves as the Lead Agency for this EIR pursuant to CEQA Guidelines Section 15050. The City's Planning Commission will evaluate this EIR and the Project Applicant's requested discretionary applications (General Plan Amendment, Change of Zone, Plot Plan, and Tentative Parcel Map). The Planning Commission will make a recommendation to the City Council whether the Project should be approved and this EIR should be certified. The City Council is the decision-making authority for the Project and will consider the Project along with the Planning Commission's recommendations and will make a final decision to approve, approve with



changes, or deny the Project. The City Council will consider the information contained in this EIR and the Project's Administrative Record in its decision-making processes.

In the event of City Council approval of the Project and certification of this EIR, City staff would conduct administrative reviews and grant ministerial permits for plans that do not deviate from the plans approved by the City Council. If the Project Applicant proposes to modify any aspect of the plans approved by the City Council, City staff will review the modified plans and determine whether the changes warrant City review under the "Major" or "Minor" review processes outlined in Municipal Code Section 9.02.030 (Development Review Process). Plan modifications that substantially conform to the approved plans and meet the conditions outlined in Municipal Code Section 9.02.070 (Plot Plan) and/or 9.02.280 (Substantial Conformance) can be approved administratively by the Community Development Director. In the event of substantial modifications to the plans approved by the City Council, the modified plans will be reviewed by City staff and considered before the Planning Commission subject to the applicable provisions outlined in the Section 9.02.070 (Plot Plan) of the Moreno Valley Municipal Code. Were the Project to be changed to the conceptual 48-foot-tall fulfillment/e-commerce option described in this section following City Council approval, this modification could be approved administratively by the Community Development Director or referred to the Planning Commission for consideration. Were the Project to be changed to the conceptual 100-foot-tall fulfillment/e-commerce option described in this section following City Council approval, this modification would be referred to the Planning Commission for consideration.

A list of the actions under City of Moreno Valley jurisdiction is provided in Table 3-3, *Project Related Approvals/Permits*. In addition, additional discretionary and/or administrative actions will be necessary from other government agencies to fully implement the Project. Table 3-3 lists the government agencies that are expected to use the Project's EIR during their consultation and review of the Project and its implementing actions and provides a summary of the subsequent actions associated with the Project.



Table 3-3 Project Related Approvals/Permits

Public Agency	Approvals and Decision
Proposed Project – City of Moreno Valley Discretionary Approvals	
City of Moreno Valley Planning Commission	<ul style="list-style-type: none"> • Recommend approval, conditional approval, or denial of General Plan Amendment (PEN19-0191), Change of Zone (PEN19-0192), Plot Plan (PEN19-0193), and Tentative Parcel Map (PEN19-0234). • Recommend that the City Council reject or certify this EIR along with appropriate CEQA Findings.
City of Moreno Valley City Council	<ul style="list-style-type: none"> • Approve, conditionally approve, or deny General Plan Amendment (PEN19-0191), Change of Zone (PEN19-0192), Plot Plan (PEN19-0193), and Tentative Parcel Map (PEN19-0234). • Reject or certify this EIR along with appropriate CEQA Findings.
Subsequent City of Moreno Valley Ministerial Approvals	
City of Moreno Valley Staff	<ul style="list-style-type: none"> • Approve precise site plan(s) and landscaping/irrigation plan (s), as may be appropriate. • Issue Grading Permits. • Issue Building Permits. • Approve Road Improvement Plans. • Issue Encroachment Permits. • Accept public right-of-way dedications. • Approve Stormwater Pollution Prevention Plan (SWPPP) and Water Quality Management Plan (WQMP).
Other Agencies – Subsequent Approvals and Permits	
Riverside County Flood Control and Water Conservation District	<ul style="list-style-type: none"> • Administrative approvals related to the design and construction of stormwater drainage infrastructure.
Eastern Municipal Water District	<ul style="list-style-type: none"> • Administrative approvals for construction of water and sewer infrastructure and connection to the water and sewer distribution and conveyance systems.
Santa Ana Regional Water Quality Control Board	<ul style="list-style-type: none"> • Issuance of a Construction Activity General Construction Permit. • Issuance of a National Pollutant Discharge Elimination System (NPDES) Permit. • Approval of WQMP
Riverside County Department of Environmental Health	<ul style="list-style-type: none"> • Approvals related to capping and abandonment of water well and removal of septic systems and leach fields.



4.0 ENVIRONMENTAL ANALYSIS

4.0.1 SUMMARY OF EIR SCOPE

In accordance with CEQA Guidelines Sections 15126-15126.4, this EIR Section includes analyses of potential direct, indirect, and cumulatively-considerable impacts that could result from the planning, construction, and/or operation of the proposed Project.

An Initial Study was prepared to determine the scope of environmental analysis for this EIR (refer to *Technical Appendix A*). The City of Moreno Valley made the Initial Study available on its website for review and mailed a Notice of Preparation (NOP) to public agencies and interested individuals to solicit input on the scope of study for this EIR. The City of Moreno Valley also held an EIR Scoping Meeting to inform the public of the Project and the environmental review process and provide additional information on how to submit public comments. Taking all known information and public comments into consideration, 14 primary environmental subject areas are evaluated in detail in this EIR Section 4.0, as listed below. Each subsection evaluates several specific topics related to the primary environmental subject. The title of each subsection is not limiting; therefore, refer to each subsection for a full account of the specific subject matters addressed therein.

- | | | | |
|-----|--------------------------|------|-------------------------------|
| 4.1 | Aesthetics | 4.8 | Hazards & Hazardous Materials |
| 4.2 | Air Quality | 4.9 | Hydrology & Water Quality |
| 4.3 | Biological Resources | 4.10 | Land Use & Planning |
| 4.4 | Cultural Resources | 4.11 | Noise |
| 4.5 | Energy | 4.12 | Transportation |
| 4.6 | Geology & Soils | 4.13 | Tribal Cultural Resources |
| 4.7 | Greenhouse Gas Emissions | 4.14 | Utilities & Service Systems |

Based on the conclusions in the Initial Study and after consideration of all comments received by the City of Moreno Valley on the scope of this EIR and documented in the City’s administrative record, the City determined that the Project clearly had no potential to result in significant impacts under six (6) primary environmental subject areas: Agriculture & Forestry Resources, Mineral Resources, Population & Housing, Public Services, Recreation, and Wildfire. These six subjects are addressed in Section 5.0, *Other CEQA Considerations*.

4.0.2 SCOPE OF CUMULATIVE EFFECTS ANALYSIS

CEQA requires that an EIR contain an assessment of the cumulative impacts that may be associated with a proposed project. As noted in CEQA Guidelines Section 15130(a), “an EIR shall discuss cumulative impacts of a project when the project’s incremental effect is cumulatively considerable.” “A cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects creating related impacts” (CEQA Guidelines Section 15130(a)(1)). As defined in CEQA Guidelines Section 15355:

‘Cumulative Impacts’ refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.



- (a) *The individual effects may be changes resulting from a single project or a number of separate projects.*
- (b) *The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.*

CEQA Guidelines Section 15130(b) describes two acceptable methods for identifying a study area for purposes of conducting a cumulative impact analysis. These two approaches include: “1) a list of past, present, and probable future projects producing related or cumulative impacts, including if necessary, those projects outside the control of the agency [‘the list of projects approach’], or 2) a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact [‘the summary of projections approach’].”

The summary of projections approach is used in this EIR, except for the evaluation of cumulative transportation and vehicular-related air quality, greenhouse gas, and noise impacts, for which a combination of the summary of projections and the list of projects approaches are used. The analysis of cumulative transportation impacts combines the summary of projections approach with the manual addition of past, present, and reasonably foreseeable projects (“combined approach”). The City of Moreno Valley determined the combined approach to be appropriate because long-range planning documents contain a sufficient amount of information to enable an analysis of cumulative effect for all subject areas, except for transportation (and vehicular-related air quality, greenhouse gas, and noise effects), which requires a greater level of detailed study. The cumulative impact analyses of vehicular-related air quality, greenhouse gas, and noise impacts, which rely on data from the Project’s traffic study, inherently utilize the combined approach. With the combined approach, the cumulative impact analyses for the air quality, greenhouse gas, noise, and transportation issue areas overstate the Project’s potential cumulatively considerable impacts relative to analyses that rely solely on the list of projects approach or solely on the summary of projections approach; therefore, the combined approach provides a conservative, “worst-case” analysis for the Project’s contribution to cumulative air quality, greenhouse gas, noise, and transportation impacts.

The list of projects used to supplement the summary of projections approach for the cumulative transportation impact analysis (as well as vehicular-related air quality, greenhouse gas, and noise impact analyses) includes known approved and pending development projects in proximity to the Project site that would contribute traffic to the same transportation facilities as the Project. This methodology recognizes development projects that have the potential to contribute measurable traffic to the same intersections, roadway segments, and/or State highway system facilities as the proposed Project and have the potential to be fully operational in the foreseeable future. Accordingly, the cumulative impact analysis of transportation (and vehicular-related air quality, greenhouse gas, and noise impacts) includes the 73 other known past, present, and reasonably foreseeable projects described in Table 4.0-1, *List of Cumulative Projects*, and illustrated on Figure 4.0-1, *Cumulative Projects Location Map*, in addition to the summary of projections.



Table 4.0-1 List of Cumulative Projects

Project Number	Project Name/Developer	Location	Land Use	Quantity	Units
1	Waste Management MVRT	17700 Indian St, Moreno Valley, CA	Waste Resource Facility	500	TPD
2	San Michele Industrial Facility	NWC of Perris Blvd/San Michele Rd, Moreno Valley, CA	Warehouse	241.22	TSF
3	Indian Street Commerce Center	SWC of Indian St/Grove View Rd, Moreno Valley, CA	Warehouse	436.35	TSF
4	Warehouse	17791 Perris Blvd, Moreno Valley, CA	Warehouse	736.47	TSF
5	Truck Storage Yard	24811 Rivard Rd, Moreno Valley, CA	Storage Yard	4.89	Acres
6	Warehouse	SWC of Perris Blvd/Nandina Ave, Moreno Valley, CA	Warehouse	340.18	TSF
7	Moreno Valley Industrial Center	North of San Michele Rd, west of Perris Blvd, Moreno Valley, CA	Warehouse	354.81	TSF
8	Warehouse	NEC of Perris Blvd/Modular Way, Moreno Valley, CA	High-Cube Warehouse	1109.38	TSF
9	Warehouse	NEC of Heacock St/Nandina Ave, Moreno Valley, CA	High-Cube Warehouse	696.70	TSF
10	Warehouse	SWC of Perris Blvd/San Michele Rd, Moreno Valley, CA	High-Cube Warehouse	400.13	TSF
11	First Nandina Logistics Center	SWC of Indian St/Nandina Ave, Moreno Valley, CA	High-Cube Warehouse	1450.00	TSF
12	Lumber Yard	South of Nandina Ave, between Heacock St & Indian St, Moreno Valley, CA	Lumber Yard	67.00	TSF
13	Warehouse	South of Harley Knox Blvd between Webster Ave and Indian Ave, Perris, CA	Warehouse	170.00	TSF
14	Moreno Valley Logistics Center	South of Krameria Ave between Heacock St and Indian St, Moreno Valley, CA	Warehouse	1737.52	TSF
15	Brodiaea Commerce Center	NWC of Brodiaea Ave/Heacock St, Moreno Valley, CA	Warehouse	262.398	
16	Brodiaea Business Park	SWC of Brodiaea Ave/Heacock St, Moreno Valley, CA	Warehouse	99.98	TSF
17	Prologis Centerpointe	NWC of Graham St/Brodiaea Ave, Moreno Valley, CA	Warehouse	601.81	TSF
18	Newcastle Frederick	NEC of Frederick St/Brodiaea Ave, Moreno Valley, CA	Warehouse	203.71	TSF
19	PAMA Business Park	Southside of Alessandro Blvd, west of Heacock St, Moreno Valley, CA	Warehouse	270.00	TSF
20	Heacock Commerce Center	SWC of Alessandro Blvd/Brodiaea Ave, Moreno Valley, CA	Warehouse	256.86	TSF
21	March LifeCare Campus	SWC of Heacock St/Cactus Ave, Moreno Valley, CA	Medical Office Retail R&D Hospital Assisted Living	190 210 200 50 660	TSF TSF TSF Beds Beds
22	Alessandro Apartments	Southside of Alessandro Blvd, west of Appleblossom Ln, Moreno Valley, CA	Apartments	272	DU
23	Wolverine Properties Residential	Northside of Locust Ave, west of Trust Way, Moreno Valley, CA	Single-Family Residential	26	DU
24	Global Investment Residential	Northside of Ironwood Ave, between Nason St & Moreno Beach Dr, Moreno Valley, CA	Single-Family Residential	272	DU
25	Curtis Development Residential	North of Manzanita Ave, east of Quincy St, Moreno Valley, CA	Single-Family Residential	23	DU
26	Sussex Capital Group Residential	South of Kalmia Ave, west of Quincy St, Moreno Valley, CA	Single-Family Residential	58	DU



Table 4.0-1 List of Cumulative Projects

Project Number	Project Name/Developer	Location	Land Use	Quantity	Units
27	Pacific Scene Homes Residential	North of Ironwood Ave, east of Pettit St, Moreno Valley, CA	Single-Family Residential	31	DU
28	Sussex Capital Group Residential	South of Kalmia Ave, east of Quincy St, Moreno Valley, CA	Single-Family Residential	11	DU
29	Pacific Communities Residential	North of Juniper Ave, west of Redlands Blvd, Moreno Valley, CA	Single-Family Residential	24	DU
30	Pacific Communities Residential	South of Juniper Avenue, west of Redlands Blvd, Moreno Valley, CA	Single-Family Residential	47	DU
31	RSI Residential	NWC of Nason St/Eucalyptus Ave, Moreno Valley, CA	Single-Family Residential	87	DU
32	Lansing Companies Residential	NEC of Moreno Beach Dr/Cottonwood Ave, Moreno Valley, CA	Single-Family Residential	562	DU
33	Beazer Homes Residential	Southside of Eucalyptus Ave, east of Fir Ave, Moreno Valley, CA	Single-Family Residential	275	DU
34	Winchester Associates Residential	Sout of Cottonwood Ave, between Nason St & Marth Crawford St, Moreno Beach, CA	Single-Family Residential	52	DU
35	Dev West Engineering Residential	North of Bay Ave, between Oliver St & Moreno Beach Dr, Moreno Valley, CA	Single-Family Residential	80	DU
36	Winchester Associates Residential	North of Alessandro Blvd, west of Marion Rd, Moreno Valley, CA	Single-Family Residential	54	DU
37	Frontier Homes Residential	North of Alessandro Blvd, west of Moreno Beach Dr, Moreno Valley, CA	Single-Family Residential	56	DU
38	Gabel, Cook, and Associates Residential	South of Alessandro Blvd, between Nason St & Oliver St, Moreno Valley, CA	Single-Family Residential	107	DU
39	Winchester Associates Residential	SWC of Oliver St/Alessandro Blvd, Moreno Valley, CA	Single-Family Residential	63	DU
40	Joe Anderson Residential	NWC of Oliver St/Brodiaea Ave, Moreno Valley, CA	Single-Family Residential	32	DU
41	Mike McKnight Planning Residential	South of Alessandro Blvd, between Oliver St & Moreno Beach Dr, Moreno Valley, CA	Single-Family Residential	96	DU
42	Frontier Homes Residential	South of Brodiaea Ave, between Oliver St & Moreno Beach Dr, Moreno Valley, CA	Single-Family Residential	40	DU
43	Hakan Buvan Residential	NEC of Bradshaw Cir/Medinah Way, Moreno Valley, CA	Single-Family Residential	8	DU
44	Michael De La Torre Residential	NEC of Moreno Beach Dr/Cactus Ave, Moreno Valley, CA	Single-Family Residential	6	DU
45	KB Homes Residential	North of Cactus Ave, east of Medinah Wah, Moreno Valley, CA	Single-Family Residential	159	DU
46	Motlagh Family Trust Residential	North of Alessandro Blvd/west of Wilmot St, Moreno Valley, CA	Single-Family Residential	25	DU
47	Cantebury Residential	NEC of Morningside Dr/Brodiaea Ave, Moreno Valley, CA	Single-Family Residential	45	DU
48	26th Corp. Residential	SEC of Merwin St/Alessandro Blvd, Moreno Valley, CA	Single-Family Residential	235	DU
49	Kuo Ming Lee Residential	North of Eucalyptus Ave, between WLC Pkwy & Gilman Springs Rd, Moreno Valley, CA	Single-Family Residential	34	DU
50	Michael Dillard Residential	North of Eucalyptus Ave, between WLC Pkwy & Gilman Springs Rd, Moreno Valley, CA	Single-Family Residential	9	DU
51	RSI Residential	NWC of Perris Blvd/Gentian Ave, Moreno Valley, CA	Single-Family Residential	140	DU

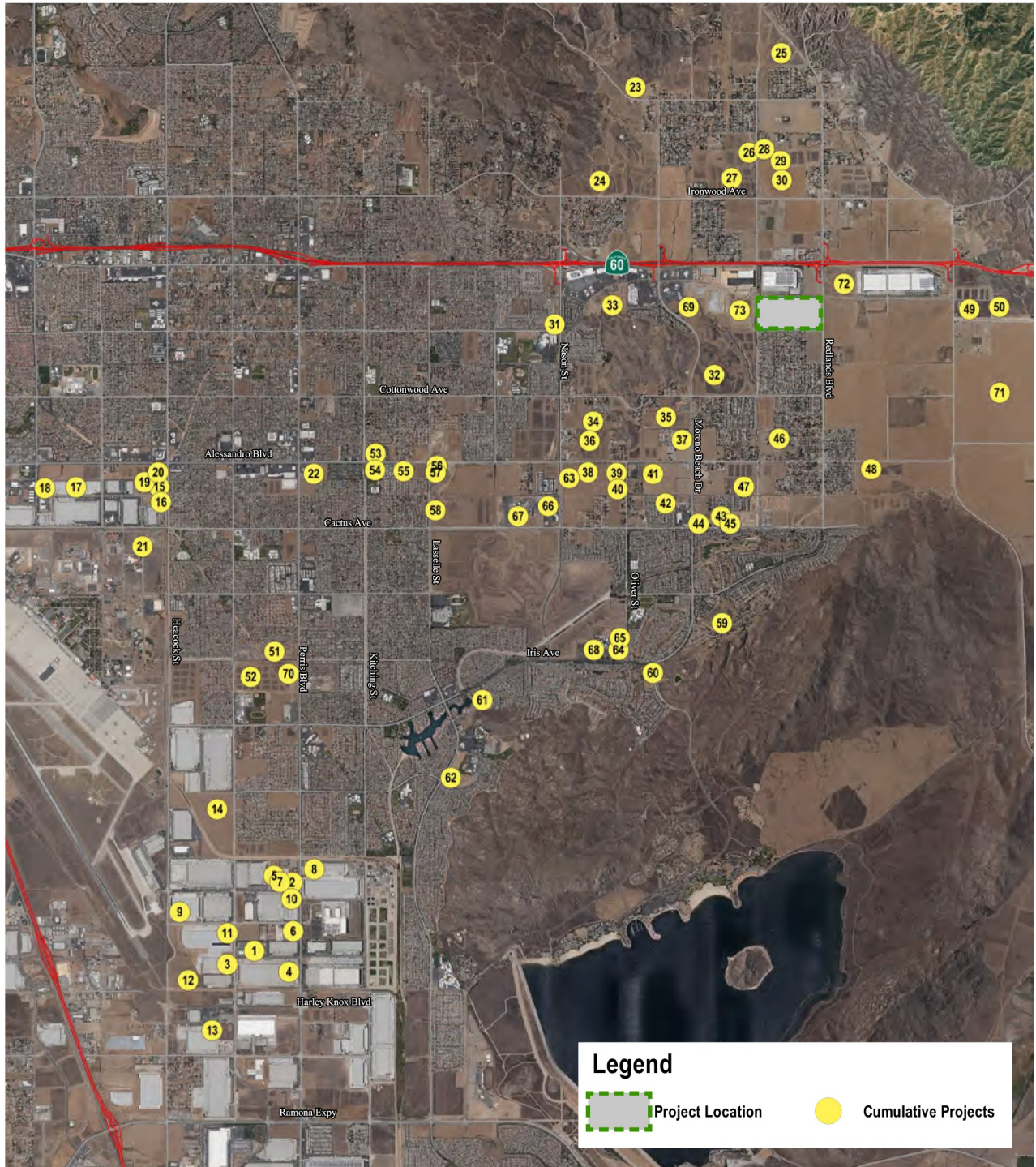


Table 4.0-1 List of Cumulative Projects

Project Number	Project Name/Developer	Location	Land Use	Quantity	Units
52	RSI Residential	SEC of Indian St/Gentian Ave, Moreno Valley, CA	Single-Family Residential	221	DU
53	Creative Design Assoc. Residential	North of Alessandro Blvd, east of Kitching St & west of Chara St, Moreno Valley, CA	Multi-Family Residential	39	DU
54	Creative Design Assoc. Residential	SEC of Kitching St/Alessandro Blvd, Moreno Valley, CA	Multi-Family Residential	58	DU
55	Perris Pacific Company Residential	SWC of Chervil Ct/Alessandro Blvd, Moreno Valley, CA	Multi-Family Residential	49	DU
56	Boulder Ridge Residential	SEC of Lasselle St/Alessandro Blvd, Moreno Valley, CA	Multi-Family Residential	141	DU
57	Rocas Grandes Residential	NEC of Copper Cove Ln/Alessandro Blvd, Moreno Valley, CA	Multi-Family Residential	426	DU
58	MV Bella Vista GP Residential	NEC of Lasselle St/Cactus Ave, Moreno Valley, CA	Multi-Family Residential	220	DU
59	ROCIII CA Belago Residential	NEC of Moreno Beach Dr/Championship Dr, Moreno Valley, CA	Multi-Family Residential	417	DU
60	Granite Capital Residential	SWC of Via Del Lago/Moreno Beach Dr, Moreno Valley, CA	Multi-Family Residential	135	DU
61	GHA Residential	South of Iris Ave, west of Avenida De Circo, Moreno Valley, CA	Multi-Family Residential	62	DU
62	Continental East Fund Residential	NEC of Lasselle St/Krameria Ave, Moreno Valley, CA	Multi-Family Residential	112	DU
63	Moreno Valley Medical Plaza	SEC of Nason St/Alessandro Blvd, Moreno Valley, CA	Medical Office	217	TSF
64	Fresenius Medical Care	NWC of Oliver St/Iris Ave, Moreno Valley, CA	Medical Office	12	TSF
65	Mainstreet Post-Acute Care	SWC of Oliver St/Filaree Ave, Moreno Valley, CA	Medical Office	57	TSF
66	Integrated Care Communities	South of Brodiaea Ave, west of Nason St, Moreno Valley, CA	Nursing Home	99	Beds
67	Riverside University Health System Expansion	Northside of Cactus Ave, west of Nason St, Moreno Valley, CA	Medical Office	200	TSF
68	Kaiser Permanente Medical Center Phase I	Northside of Iris Ave, east of Turnberry St, Moreno Valley, CA	D & T Expansion	95	TSF
69	Car Pros Kia	SEC of Auto Mall Dr/Pettit St, Moreno Valley, CA	Automobile Dealership	42	TSF
70	Moreno Valley Walmart	SWC of Perris Blvd/Gentian Ave	Free-Standing Discount Superstore	190	TSF
71	World Logistics Center Phase I	East of World Logistics Pkwy/ north of Alessandro Blvd, Moreno Valley, CA	Warehouse	22,946	TSF
72	Sketchers Expansion	NEC of Redlands Blvd/Eucalyptus Ave, Moreno Valley, CA	Warehouse	800	TSF
73	Warehouse	Southside of Eucalyptus Ave, East of Auto Mall Dr, Moreno Valley, CA	Warehouse	339	TSF

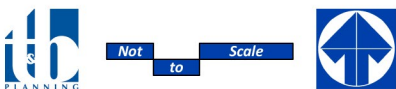
“TSF” = thousand square feet; “TPD” = tonnes per day; “DU” = dwelling units

Source: This table has been adapted from Table C-5 of *Technical Appendix L2*. (Translutions, 2020b, Table C-5)



Source(s): translutions, inc. (06-12-2020)

Figure 4.0-1



Cumulative Projects Location Map



For the cumulative impact analyses that rely on the summary projections approach (i.e., all issue areas with the exception of transportation and vehicular-related air quality, greenhouse gas, and noise – as described in the preceding pages), the cumulative study area primarily includes the City of Moreno Valley which is among incorporated cities and unincorporated communities located in the northwest portion of Riverside County that have similar environmental characteristics as the Project area. The selected study area encompasses a valley that is largely bounded by prominent topographic landforms, such as Box Spring Mountain, the Foothills, and Reche Canyon to the north, the Badlands to the east, and the Lakeview Mountains and Mount Russell to the southeast. This study area exhibits similar characteristics in terms of climate, geology, and hydrology and, therefore, is also likely to have similar biological and archaeological characteristics as well. This study area also encompasses the service areas of the Project site’s primary public service and utility providers. Areas outside of this study area either exhibit topographic, climatological, or other environmental circumstances that differ from those of the Project area, or are simply too far from the proposed Project site to produce environmental effects that could be cumulatively considerable. Exceptions include the cumulative air quality analysis, which considers the entire South Coast Air Basin (SCAB); the greenhouse gas emissions and global climate change analysis, which affects all areas on the planet; and the analysis of potential cumulative hydrology and water quality effects, which considers other development projects located within the Santa Ana River Basin watershed.

Environmental impacts associated with buildout of the Project’s cumulative study area were evaluated in CEQA compliance documents prepared for the respective General Plans covering the cumulative study area. The location where each of these CEQA compliance documents is available for review is provided below. All of the CEQA compliance documents listed below are herein incorporated by reference pursuant to CEQA Guidelines Section 15150.

- City of Moreno Valley General Plan EIR (SCH No. 200091075), available for review at the City of Moreno Valley Community Development Department, 14177 Frederick Street, Moreno Valley, CA 92552;
- City of Perris General Plan EIR (SCH No. 2004031135), available for review at the City of Perris Department of Community Development, 135 North “D” Street, Perris, CA 92570; and
- County of Riverside General Plan EIR (SCH No. 200904105), available for review at the County of Riverside Transportation and Land Management Agency Planning Department, 4080 Lemon Street, 12th Floor, Riverside, CA 92502.

4.0.3 ANALYSIS FORMAT

Subsections 4.1 through 4.14 of this EIR evaluate the 14 environmental subjects warranting detailed analysis as determined by the City of Moreno Valley identified by the City of Moreno Valley in consideration of preliminary research findings, public comments, and technical study. The format of discussion is standardized as much as possible in each section for ease of review. The environmental setting is discussed first, followed by a discussion of the potential environmental impacts that would result from implementation of the Project (which is based on specified thresholds of significance used as criteria to determine whether potential environmental effects are significant).



The thresholds of significance used in this EIR are based on the thresholds approved by the City of Moreno Valley in their *City of Moreno Valley Rules and Procedures for the Implementation of the California Environmental Quality Act* (see CEQA Guidelines Section 15064.7). The thresholds are intended to assist the reader of this EIR in understanding how and why this EIR reaches a conclusion that an impact would or would not occur, is significant, or is less than significant.

Serving as the CEQA Lead Agency for this EIR, the City of Moreno Valley is responsible for determining whether an adverse environmental effect identified in this EIR should be classified as significant or less than significant. The standards of significance used in this EIR are based on the independent judgment of the City of Moreno Valley, taking into consideration the *City of Moreno Valley Rules and Procedures for the Implementation of the California Environmental Quality Act* (July 2019), the City of Moreno Valley General Plan, the Moreno Valley Municipal Code and adopted City policies, the judgment of the technical experts that prepared this EIR's technical appendices, performance standards adopted, implemented, and monitored by regulatory agencies, and significance standards recommended by regulatory agencies.

As required by CEQA Guidelines Section 15126.2(a), Project-related effects on the environment are characterized in this EIR as direct, indirect, cumulatively considerable, short-term, long-term, on-site, and/or off-site impacts. A summarized "impact statement" is provided in each subsection following the analysis. Each subsection also includes a discussion or listing of the applicable regulatory criteria (laws, policies, regulations) that the Project and its implementing actions are required to comply with (if any). If impacts are identified as significant after mandatory compliance with regulatory criteria, feasible mitigation measures are presented that would either avoid the impact or reduce the magnitude of the impact. For any impact identified as significant and unavoidable, the City of Moreno Valley would be required to adopt a statement of overriding considerations pursuant to CEQA Guidelines Section 15093 in order to approve the Project despite its significant impact(s) to the environment. The statement of overriding considerations would list the specific economic, legal, social, technological, and other benefits of the Project, supported by substantial evidence in the Project's administrative record, that outweigh the unavoidable impacts.



4.1 AESTHETICS

This Subsection describes the aesthetic qualities and visual resources present on the Project site and in the site's vicinity, and evaluates the potential effects that the Project may have on these resources. Descriptions of existing visual characteristics, both on-site and in the vicinity of the Project site, and the analysis of potential impacts to aesthetic resources are based on field observations and site photographs collected by T&B Planning, Inc. in May 2020 (T&B Planning, 2020); analysis of aerial photography (Google Earth Pro, 2020); and the Project application materials submitted to the City of Moreno Valley described in Section 3.0, *Project Description*, of this EIR. This Subsection also is based on information contained in the Aesthetics section of the certified Final Program EIR prepared for the City's General Plan (SCH No. 200091075) (Moreno Valley, 2006b), and the City of Moreno Valley Municipal Code (Moreno Valley, 2018). All references used in this Subsection are listed in EIR Section 7.0, *References*.

4.1.1 EXISTING CONDITIONS

A. Project Site and Surrounding Areas

The Project site is located in the eastern portion of the City of Moreno Valley, Riverside County, California. The Project site is located immediately south of Eucalyptus Avenue, immediately west of Redlands Boulevard, and immediately north of Encelia Avenue. For many decades, the surrounding area exhibited a rural or undeveloped character, but the locale is currently in a state of transition to an urbanized character. Under existing conditions, some of the surrounding area remains undeveloped, while other areas are urbanized. For example, warehouse buildings exist to the immediate north and northwest of the Project site and a suburban-style residential community with single-family lots is located to the south of the site, while undeveloped parcels are located to the east (approved for large-scale industrial development) and west of the site (planned for residential land uses). Refer to EIR Subsection 2.3, *Surrounding Land Uses*, for a description of uses abutting the Project site.

Topographically, the site is gently sloping with elevations ranging from approximately 1,704 feet above mean sea level (amsl) in the southeastern portion of the site to approximately 1,755 amsl in the northwestern portion of the Project site. There are no rock outcroppings or unique topographic features on the Project site.

Pursuant to CEQA Guidelines Section 15125 and explained in Section 2.0 of this EIR, the physical environmental condition for purposes of establishing the setting of this EIR is the environment as it existed at the time the EIR's NOP was released for public review. The NOP for this EIR was released on March 16, 2020. As of that approximate date, a commercial plant nursery with five (5) associated structures – three (3) residences, an ancillary garage, and a small office building were located in the southeast corner of the site. The three (3) residential structures are occupied. The remaining portions of the Project site are undeveloped.

Figure 4.1-1, *Site Photograph Key Map*, illustrates the locations of the six (6) vantage points that were used in the photographic inventory of the Project site and are relied upon herein to describe the Project site's existing aesthetic condition and character. The photographs taken from these vantage points are illustrated on Figure 4.1-2 and Figure 4.1-3. These photographs provide a representative visual depiction of the site's visual characteristics as seen from surrounding public viewing areas, which consist of public roads adjacent to the



Project site. The photographs were all taken during the same session and reflect a field of view approximately five (5) feet above the ground.

B. Scenic Vistas and Scenic Resources

The Project site is located within a relatively flat valley floor surrounded by rugged hills and mountains. Major scenic resources in Moreno Valley that contribute to scenic vistas include the Box Springs Mountains to the northwest, Reche Canyon and the Foothills to the north, the Badlands to the northeast, and Mount Russell and its foothills to the southeast of the City (Moreno Valley, 2006a, p. 7-14, Figure 7-2). Due to intervening development and their distance and orientation in relation to the Project site, prominent, distinct views of the Box Springs Mountain and Mount Russell are not available from public viewing areas abutting the Project site under existing conditions. Distant views of the Foothills to the north and Badlands (and beyond, San Gorgonio Mountain) to the east are available from public viewing areas in the Project site vicinity; however, these views are not prominent from the Project area. (Google Earth Pro, 2020)

There are no State-designated scenic road or highway corridors within the City of Moreno Valley (Caltrans, 2017b). Notwithstanding, the segment of State Route 60 that is located approximately 1,300 feet north of the Project site is identified in the City of Moreno Valley General Plan as a local scenic route (Moreno Valley, 2006a, p. 7-14, Figure 7-2).

C. Light and Glare

The Project site contains minimal sources of artificial, exterior lighting under existing conditions. Artificial lighting sources occur in the immediate vicinity of the Project site, with the most notable sources of light emanating from street lights along the northern side of Eucalyptus Avenue and southern side of Encelia Avenue, and from developed properties to the north and to the south of the Project site.

4.1.2 REGULATORY SETTING

A. Local Plans, Policies, and Regulations

1. City of Moreno Valley General Plan

The City of Moreno Valley General Plan guides future development within the City. The General Plan's Community Development Element, Parks, Recreation and Open Space Element, and Conservation Element identify attributes that contribute form, character, and quality of life in the communities and neighborhoods where people live and provide goals, policies and programs that are intended to preserve the City's character and scenic resources while improving overall community design.

2. City of Moreno Valley Municipal Code

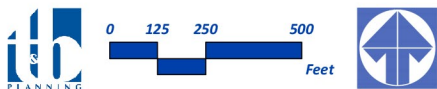
The City of Moreno Valley Municipal Code Section 9.08.100 regulates light and glare associated with new development in the City, and requires the following of non-residential development:

All outdoor lighting associated with nonresidential uses shall be fully shielded and directed away from surrounding residential uses. Such lighting shall not exceed one-quarter foot-candle minimum maintained lighting measured from within five feet of any property line, and shall not blink, flash, oscillate, or be of unusually high intensity or brightness (Moreno Valley, 2018).



Source(s): ESRI, Nearmap Imagery (2019), RCTLMA (2019)

Figure 4.1-1



Site Photograph Key Map



Site Photo 1: From Northwest Corner of the Project Site, near Eucalyptus Ave, looking East to South.

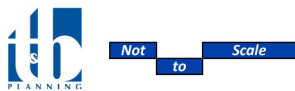


Site Photo 2: From Northeast Corner of the Project Site, at the intersection of Eucalyptus Ave & Redlands Blvd, looking South to West.



Site Photo 3: From Eastern Edge of the Project Site, along Redlands Blvd, looking South to North.

Figure 4.1-2



Site Photographs 1-3



Site Photo 4: From Southeast Corner of the Project Site, at the intersection of Redlands Blvd & Encelia Ave, looking West to North.

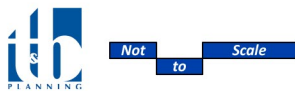


Site Photo 5: From Southern Edge of the Project Site, along Encelia Ave, looking West to East.



Site Photo 6: From Southwest Edge of the Project Site, along Encelia Ave, looking West to East.

Figure 4.1-3



Site Photographs 4-6



4.1.3 BASIS FOR DETERMINING SIGNIFICANCE

The Project would result in a significant impact to aesthetics if the Project or any Project-related component would:

- a. *Have a substantial adverse effect on a scenic vista;*
- b. *Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;*
- c. *In a non-urbanized area, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality; or*
- d. *Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.*

The above-listed thresholds are referenced in the *City of Moreno Valley Rules and Procedures for the Implementation of the California Environmental Quality Act* and address the typical, adverse effects that development projects could have on aesthetics/visual quality and scenic resources. The use of these thresholds for the evaluation of Project-related impacts is intended to ensure that impacts to aesthetic resources are appropriately evaluated and that feasible mitigation measures are applied for any impacts that are determined to be significant.

Regarding the determination of significance under Threshold “a,” if the Project would block or otherwise substantially and adversely affect a unique view of a scenic vista(s) as seen from a public viewing location(s), such as a public road, park, trail, and/or other publicly-owned property at which the general public is legally authorized to use or congregate, the impact would be regarded as significant. Effects to scenic vistas from private properties would not be considered significant because the City of Moreno Valley General Plan calls for the protection of public views and the City does not have any ordinances or policies in place that protect views from privately-owned property.

Regarding the determination of significance under Threshold “b,” if the Project would interfere with the substantial preservation and/or enhancement of scenic resources within a State scenic highway corridor or scenic resources visible from a State scenic highway then impacts would be significant.

The United States Census Bureau defines “urbanized area” as a densely settled core of census tracts and/or census blocks that have 50,000 or more residents and meet minimum population density requirements while also being adjacent to territory containing non-residential urban land uses. The Project site is located in an urbanized area and is within the boundaries of the Census-defined Riverside-San Bernardino urban area (USCB, 2012); therefore, for the analysis of Threshold “c,” the Project would result in a significant adverse impact if the Project design conflicts with applicable zoning and other applicable regulations governing scenic quality.



Regarding the determination of significance under Threshold “d,” if the Project would directly expose the Project area with bright lights or create unwanted light in the night sky including light trespass sky glow, or over-lighting, the Project would adversely affect day or nighttime views in the area.

4.1.4 IMPACT ANALYSIS

The analysis provided on the following pages addresses the potential aesthetics impacts that could result from implementation of the proposed warehouse distribution/logistics facility and the conceptual fulfillment/e-commerce facility site plans described in EIR Section 3.0, *Project Description*. Except where specifically noted herein, implementation of the Project for either warehouse distribution/logistics or fulfillment/e-commerce uses would result in similar aesthetics impacts.

Threshold a: Would the Project have a substantial adverse effect on a scenic vista?

Figure 4.1-2 and Figure 4.1-3 depict the Project site under existing conditions. As shown, the Project site is primarily undeveloped, with the exception of a commercial plant nursery at its southeast corner (which includes sheds, garage, office building, and residences) and does not contain any special or unique scenic attributes, like rock outcroppings, native vegetation, or a substantial number of mature trees. The City of Moreno Valley General Plan does not identify any scenic vistas or scenic corridors on the Project site or in the vicinity of the Project site. (Moreno Valley, 2006a, Figure 7-2)

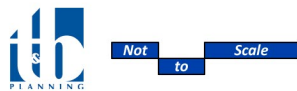
Scenic resources within and surrounding the City of Moreno Valley include the Badlands, which is located approximately 1.3 miles northeast of the Project site, Mount Russell and its foothills, which is located approximately 1.6 miles southeast of the Project site, and Reche Canyon and the Foothills, which are located approximately 2.1 miles northwest of the Project site. As shown on Figure 4.1-2, views of Reche Canyon and the Foothills are not prominently visible from the Project site and its vicinity due to existing development and topography. The Badlands are visible from the Project site and its vicinity on clear days; however, this landform is not prominently visible from the Project site and its vicinity on days with high levels of atmospheric haze (which is common throughout the year and illustrated on Figure 4.1-3). Views of Mount Russell and its foothills are relatively prominent from the Project area year-round.

The Project would involve the construction and operation of one light industrial building on the Project site. The architectural elevations of the proposed 48-foot-tall building under a warehouse distribution/logistics user are shown on Figure 4.1-4 and the architectural elevations for the conceptual 48-foot-tall building under a potential fulfillment/e-commerce user are shown on Figure 4.1-5. As previously noted in EIR Section 3.0, *Project Description*, under the conceptual scenario where the building is occupied by a fulfillment/e-commerce user, there is the potential that interior mechanical equipment could necessitate a building that could be up to 100 feet tall. Conceptual architectural elevations for a 100-foot-tall building for a fulfillment/e-commerce user are shown on Figure 4.1-6. In the event modifications are needed to the proposed site plan and/or architecture to accommodate a fulfillment/e-commerce user – whether for a 48-foot-tall building or a building up to 100 feet tall – the plan would be subject to subsequent City review pursuant to the procedures outlined in Sections 9.02.030 (Development Review Process), 9.02.070 (Plot Plans) and/or 9.02.280 (Substantial Conformance) of the City’s Municipal Code. The applicable review and approval process would be determined by the nature



Source(s): HPA (03-04-2021)

Figure 4.1-4



Proposed Architectural Elevations



Source(s): HPA (03-04-2021)

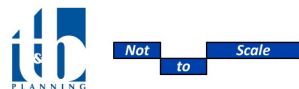


Figure 4.1-5
Conceptual Architectural Elevations for
Fulfillment/E-Commerce Plan



Source(s): HPA (03-09-2021)

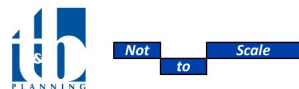


Figure 4.1-6
**Conceptual Architectural Elevations for
Fulfillment/E-Commerce Plan**



of future modifications and whether specific conditions in Municipal Code Sections 9.02.030, 9.02.070, and/or 9.02.280 are met, as described in detail in EIR Section 3.0. Implementation of the Project also would introduce other vertical features to the Project site (walls, fences, landscaping, etc.) that would be shorter and would have substantially less physical mass than the building, so the proposed light industrial building is considered to have the greatest potential to affect a scenic vista. The proposed building would be set back from Eucalyptus Avenue, Redlands Boulevard, and Encelia Avenue by approximately 150+ feet. These roadways are the existing public viewing areas from where views of local scenic resources have the potential to be affected by the Project.

Due to existing warehouse development located immediately north and northwest of the Project site and existing topography north of the Project site, prominent distinct views of Reche Canyon and the Foothills are not available from the segments of Eucalyptus Avenue and Redlands Avenue abutting the Project site. Thus, implementation of the Project whether constructed at its proposed 48-foot height or conceptual height of up to 100 feet would not result in substantial adverse effects to local views of Reche Canyon and the Foothills from either Eucalyptus Avenue or Redlands Avenue. Notwithstanding, partially obstructed views of Reche Canyon and the Foothills are available from portions of Encelia Avenue abutting the Project site (generally, the segment west of Shubert Street). The proposed physical changes to the site – the height of the proposed building, the change in the site’s topography (which would be raised above existing ground elevations at the southern portion of the site), and landscaping that would be planted adjacent to the north side of Encelia – are expected to mostly or completely obstruct the remaining views of Reche Canyon and the Foothills as viewed from Encelia Avenue abutting the Project site (west of Shubert Street). This impact would occur under both the proposed 48-foot building height and the conceptual height of up to 100 feet. The City concludes this impact would be significant.

Due to the orientation of the Badlands to the northeast and east of Project site, implementation of the Project would have no effect on views of the Badlands from the segments of Eucalyptus Avenue and Redlands Boulevard abutting the Project site. However, the construction of a building on-site (at the proposed height of 48 feet or the conceptual height of up to 100 feet) and on-site landscaping is expected to block views of the Badlands and the San Bernardino Mountains beyond as viewed from portions of the Encelia Avenue segment abutting the Project site (west of Shubert Street). The existing plant nursery and plant materials (i.e., trees) on southwest corner of the Project site already partially obstruct views of the Badlands and the San Bernardino Mountains from the Encelia Avenue segment west of Shubert Street and the change resulting from the Project would not be substantial relative to existing conditions at this location. The expected loss of most or all views of the Badlands and the San Bernardino Mountains from the Encelia Avenue segment located west of Shubert Street is regarded as a significant impact. This impact would occur under both the proposed 48-foot building height and the conceptual height up to 100 feet.

The Project also would obstruct views of Mount Russell and its foothills visible from the Eucalyptus Avenue segment abutting the Project site under the proposed 48-foot building height and the conceptual building height of up to 100 feet. The City determines this impact would be significant.



Based on the foregoing analysis, implementation of the Project has the potential to result in a substantial adverse effect on scenic vistas of the Badlands (and the San Bernardino Mountains beyond) and Mount Russell and its foothills. This impact is considered significant.

Threshold b: Would the Project substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?

The Project site is not located within or adjacent to a scenic highway corridor and there are no State-designated or eligible scenic highways within the vicinity of the Project site. The nearest State-eligible scenic highway from the Project site is a segment of Interstate 215 located approximately 7.0 miles southwest of the Project site and the Project site would not be visible from this Interstate 215 segment due to distance and intervening development/topography (Caltrans, 2017a; Caltrans, 2017b; Google Earth Pro, 2020). Accordingly, the Project site is not located within a State scenic highway corridor and implementation of the proposed Project would not have a substantial effect on scenic resources within a State scenic highway corridor. Thus, no impact to a State scenic highway would occur.

The segment of State Route 60 that is located approximately 1,300 feet north of the Project site is identified in the City of Moreno Valley General Plan as a local scenic route (Moreno Valley, 2006a, p. 7-14, Figure 7-2). The Project site is mostly blocked from view from the adjacent segment of State Route 60 due to intervening development and topography – a large warehouse (Aldi), which is located on property with a higher ground elevation than the Project site, mostly blocks views of the site from passersby on State Route 60. Notwithstanding, there is an approximately 700-foot-long segment of State Route 60 where an undeveloped lot lies between the boundary of the Aldi property and the Redlands Avenue on-ramp/off-ramp and where distant views of the Project site would be possible (about 8 seconds when traveling at 60 miles per hour). The segment of State Route 60 between Nason Street and Theodore Street – a 3-mile stretch that is generally adjacent to the Project area – does not contain a substantial scenic value, as the freeway immediately abuts two large commercial retail centers, several car dealerships, and four large warehouses. Development on the Project site, which is located approximately 0.25-mile from State Route 60, would not substantially detract from the scenic qualities of State Route 60 any more than the existing commercial and industrial development that already abuts the freeway. Accordingly, implementation of the Project would not adversely affect the scenic qualities of State Route 60.

Threshold c: Would the Project in a non-urbanized area, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

The Project area is urbanized and meets the United States Census Bureau’s definition of an urbanized area.

Construction-Related Activities

Heavy equipment would be used during development of the Project. This equipment would be visible to the immediately surrounding areas during the Project’s temporary construction period. Construction activities are



a common occurrence in the urbanizing Inland Empire region of southern California and, recently, within the City of Moreno Valley. Construction activities do not inherently or substantially degrade an area's visual quality. Except for the short-term use of cranes during building construction and lifts during the architectural coating phase, the construction equipment used on the Project site is expected to be low in height and not particularly visible to the surrounding area. Furthermore, Project-related construction activities would be temporary in nature and all construction equipment would be removed from the Project site following completion of Project-related construction activities. Furthermore, during construction, the Project would be required to comply with the applicable Moreno Valley Municipal Code regulations governing scenic quality.

Based on the foregoing, Project-related changes to local visual character and quality are determined to be less than significant during temporary, short-term construction activities.

Project Buildout

Upon buildout of the Project, the visual character of the site would change from primarily undeveloped land, with a commercial plant nursery located at the southeast corner of the site, to a developed property containing one light industrial building that would be occupied by warehouse distribution/logistics or fulfillment/e-commerce users. The Project's design, including site layout, architecture, and landscaping is discussed and illustrated in detail in EIR Section 3.0, *Project Description*. As previously described, the Project's architecture incorporates a neutral color palette that would not be visually offensive and also incorporates accent elements, such as colored glass and decorative building elements at the building's office entries for visual interest. Additionally, the Project's landscape plan incorporates low water need plant species that can maintain vibrancy during drought conditions. The proposed visual features of the Project and the conceptual visual features of the potential e-commerce/fulfillment plan, as illustrated on Figure 4.1-7 through Figure 4.1-11, would be complementary with existing industrial land uses north of Eucalyptus Avenue and the approved/planned industrial land uses east of Redlands Boulevard.

The Project proposes to change the Project site's zoning designation from the "Residential Agriculture 2 (RA2) District" and "Primary Animal Keeping Overlay (PAKO) District" to the "Light Industrial (LI) District" and the Project will be required to comply with the applicable LI District development standards and design guidelines contained in the Moreno Valley zoning code, which regulate the visual quality of new development and ensure that new development does not detract from any scenic attributes/qualities in the surrounding area. As part of the City of Moreno Valley's review of the Project application materials, the City determined that no component of the Project would conflict with the design regulations applicable within the LI District, including standards pertaining to building architecture and landscaping. The LI District has no limit on building height.

As shown on Figure 4.1-7 through Figure 4.1-11, the visual quality and character of the Project site would be very similar under both the proposed warehouse distribution/logistics plan and the conceptual 48-foot-tall fulfillment/e-commerce option, with the only difference being the provision of additional passenger vehicle parking areas and a steel fence (instead of a solid screen wall) on the south side of the building. Depending on the interior equipment needs of a potential user, the building on the Project site could reach up to 100 feet in height under the conceptual fulfillment/e-commerce plan as noted in EIR Section 3.0, *Project Description*. (As noted previously in this section, any modifications to the proposed site plan and/or architecture to accommodate a fulfillment/e-commerce user – either to provide a 48-foot-tall building or a building up to 100



feet tall – would be subject to further City review pursuant to the applicable procedures outlined in Sections 9.02.030, 9.02.070, and/or 9.02.280 of the City’s Municipal Code.) The 100-foot-tall fulfillment/e-commerce option would utilize the same architectural features, building materials, and colors as the 48-foot-tall fulfillment/e-commerce plan. Renderings of the conceptual 100-foot-tall fulfillment/e-commerce option also are shown on Figure 4.1-4 through Figure 4.1-8. As with the proposed Project, the potential implementation of the fulfillment/e-commerce plan – either the 48-foot-tall or 100-foot-tall options – would be required to comply with the applicable LI District development standards and design guidelines contained in the Moreno Valley zoning code, which regulate the visual quality of new development.

Because the Project site is located in an urbanized area and because the Project would not conflict with applicable regulations governing scenic quality, a less-than-significant impact would occur.

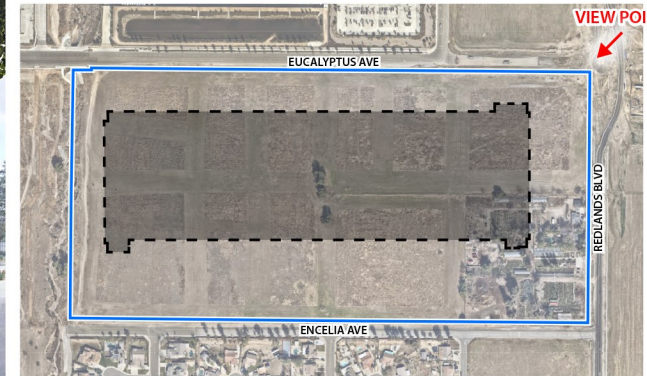
Threshold d: Would the Project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Implementation of the Project would introduce new lighting elements on-site, primarily to illuminate the parking areas, truck docking areas, and building entrances. The Project’s lighting elements would include building-mounted fixtures (security lighting and upward/downward facing decorative lighting oriented toward the building) and pole-mounted fixtures in the Project’s truck docking areas and at the Project’s driveway entries along Eucalyptus Avenue, Redlands Boulevard, and Encelia Avenue. (It should also be noted that the Project is bounded by Eucalyptus Avenue and Encelia Avenue, which have existing street lights and are well-traveled by vehicles.) The Project would be required to adhere to the lighting requirements as set forth in the City of Moreno Valley Municipal Code (Section 9.08.100). The Municipal Code lighting standards govern the placement and design of outdoor lighting fixtures to ensure adequate lighting for public safety while also minimizing light pollution and glare and precluding public nuisances. Mandatory compliance with Municipal Code Section 9.08.100 would ensure that the Project’s building – whether it be the proposed 48-foot-tall building for a warehouse distribution/logistics user or a potential building for a fulfillment/e-commerce user that could be up to 100-feet-tall – and associated site features would not introduce any permanent design features that would adversely affect day or nighttime views in the area.

With respect to glare, a majority of Project building materials would consist of painted tilt-up concrete panels (the paints proposed for the Project have a matte finish and will not produce glare), although the buildings would incorporate some glass elements. While window glazing has a potential to result in minor glare effects, such effects would not adversely affect daytime views of surrounding properties, including motorists along adjacent roadways, because the glass proposed for the Project would be low-reflective, blue glass. Thus, glare impacts from proposed building elements would be less than significant.



Proposed Warehouse Distribution/Logistics Plan



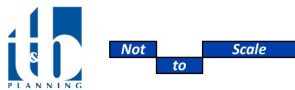
Conceptual Fulfillment/E-Commerce: 48-foot-tall Option



Conceptual Fulfillment/E-Commerce: 100-foot-tall Option

Source(s): HPA (02-24-2021)

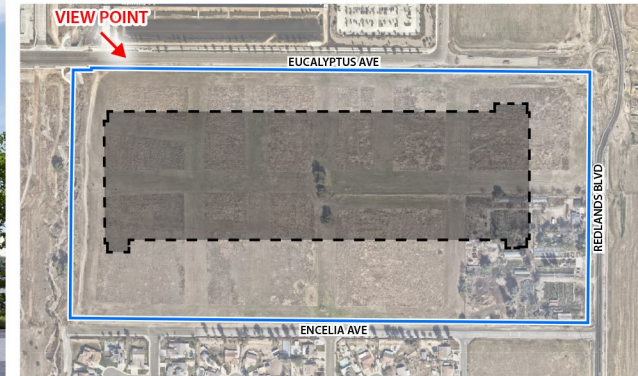
Figure 4.1-7



Rendering of Project Site from Eucalyptus Avenue (1 of 2)



Proposed Warehouse Distribution/Logistics Plan



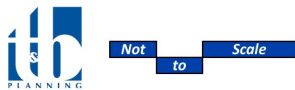
Conceptual Fulfillment/E-Commerce: 48-foot-tall Option



Conceptual Fulfillment/E-Commerce: 100-foot-tall Option

Source(s): HPA (02-24-2021)

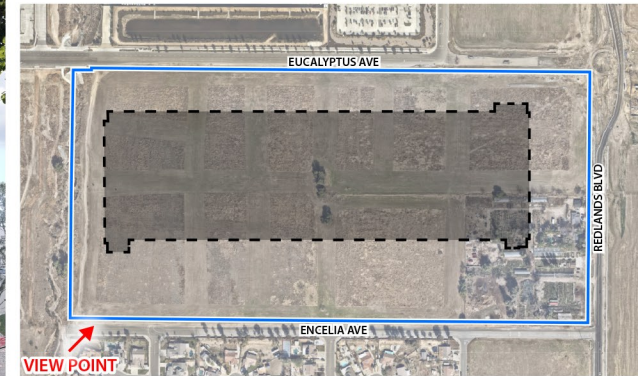
Figure 4.1-8



Rendering of Project Site from Eucalyptus Avenue (2 of 2)



Proposed Warehouse Distribution/Logistics Plan



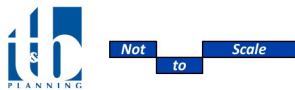
Conceptual Fulfillment/E-Commerce: 48-foot-tall Option



Conceptual Fulfillment/E-Commerce: 100-foot-tall Option

Source(s): HPA (02-24-2021)

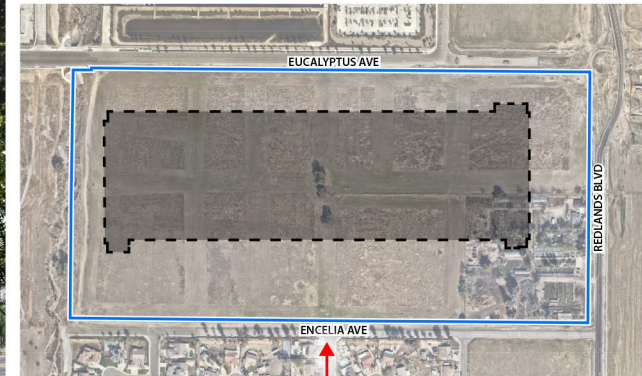
Figure 4.1-9



Rendering of Project Site from Encelia Avenue (1 of 3)



Proposed Warehouse Distribution/Logistics Plan



VIEW POINT



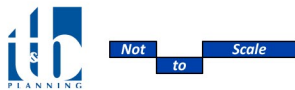
Conceptual Fulfillment/E-Commerce: 48-foot-tall Option



Conceptual Fulfillment/E-Commerce: 100-foot-tall Option

Source(s): HPA (02-24-2021)

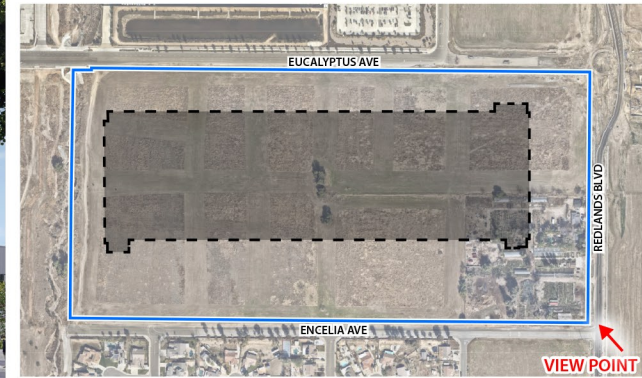
Figure 4.1-10



Rendering of Project Site from Encelia Avenue (2 of 3)



Proposed Warehouse Distribution/Logistics Plan



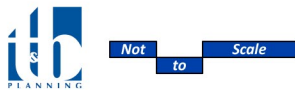
Conceptual Fulfillment/E-Commerce: 48-foot-tall Option



Conceptual Fulfillment/E-Commerce: 100-foot-tall Option

Source(s): HPA (02-24-2021)

Figure 4.1-11



Rendering of Project Site from Encelia Avenue (3 of 3)



4.1.5 CUMULATIVE IMPACT ANALYSIS

The CEQA Guidelines define a “cumulative impact” as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts” (CEQA Guidelines Section 15355). The Project’s effects to scenic views of the Reche Canyon, the Badlands (and the San Bernardino Mountains beyond), and Mount Russell and its foothills are localized to the immediate Project area and would not extend beyond the public viewing areas that immediately abut the Project site (Encelia Avenue and Eucalyptus Avenue, respectively). The scenic views that would be lost (or mostly obstructed) only occur abutting the Project site and the Project does not contain any off-site components that could adversely affect scenic views that occur elsewhere in the City. Accordingly, the Project’s impacts to local scenic views are inherently site specific and not influenced or exacerbated by effects to scenic views may occur at other, off-site properties. Because of the site-specific nature of these impacts, there would be no direct or indirect connection to similar potential issues or cumulative effects to or from other properties pursuant to Threshold “a.”

As noted under the analysis of Threshold “b,” the Project site is not located within close proximity to any designated State scenic routes and does not contain any scenic resources. Therefore, the Project has no potential contribute to a cumulatively significant impact to scenic resources within a designated scenic route corridor.

The area surrounding the Project site is transitioning to an urbanized aesthetic containing industrial land uses. As with the Project, new development in the surrounding area would be subject to applicable development regulations and design standards, including, but not limited to the Moreno Valley Municipal Code. Mandatory compliance to applicable development regulations and design standards would ensure that developments would incorporate high quality building materials, site design, and landscaping to minimize the potential for adverse effects due to a conflict with applicable zoning and other regulations governing scenic quality. In addition, the Project’s design incorporates various architectural and landscape features to enhance and/or screen views of the interior of the site from the surrounding public street system. Accordingly, Project-related impacts due to a conflict with applicable zoning and other regulations governing scenic quality would be less than cumulatively-considerable when considered in context with the existing visual character and quality of the Project site’s surroundings, which is considered an urbanized environment.

With respect to potential cumulative light and glare impacts, the Project Applicant would be required to comply with City of Moreno Valley Municipal Code Section 9.08.100, which sets standards for exterior lighting/fixtures. Other developments in the City of Moreno Valley also are required to adhere to Municipal Code Section 9.08.100. Additionally, development projects with light sources in surrounding jurisdictions would be required to comply with the light reduction requirements applicable in their respective jurisdiction. Although cumulative development in the Project’s surrounding area is expected to introduce new sources of lighting and potentially reflective materials, the required compliance with the applicable legal standard and code requirements would ensure that future cumulative development does not introduce substantial sources of lighting or glare. As such, the Project would not contribute to cumulatively-considerable, adverse impacts to the existing daytime or nighttime views of the Project site or its surroundings.



4.1.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold a: Significant Direct Impact. Implementation of the proposed Project would mostly or completely block existing views of Reche Canyon and the Foothills and the Badlands (and the San Bernardino Mountains beyond) from the Encelia Avenue segment abutting the Project site and located west of Shubert Street. In addition, implementation of the Project would mostly or completely obstruct views of Mount Russell and its foothills from the Eucalyptus Avenue segment that abuts the Project site. The loss of these existing public views would be significant.

Threshold b: No Impact. The Project site is not located within the viewshed of a scenic highway and, therefore, the Project site does not contain any scenic resources visible from a scenic highway.

Threshold c: Less-than-Significant Impact. The Project would not substantially degrade the existing visual character or quality of the site or its surrounding areas during Project construction or operation. Although the Project would change the visual character of the site from mainly undeveloped with a plant nursery and associated structures to light industrial use, the Project's surrounding area is transitioning from rural to urbanized land uses. Furthermore, the Project proposes a number of site design, architectural, and landscaping elements consistent with the Light Industrial District (LI) requirements of the City's Zoning Ordinance. Impacts would be less than significant.

Threshold d: Less-than-Significant Impact. Project-related development would not create substantial light or glare. Compliance with Moreno Valley Municipal Code requirements for lighting would ensure less-than-significant impacts associated with light and glare affecting day or nighttime views in the area from on-site lighting elements.

4.1.7 MITIGATION

No feasible mitigation is available to reduce the proposed Project's significant impact to scenic resources because the components of the Project that are the cause of the impact – the proposed grading plan and building height – are directly related to the ability of the Project to meet minimum functional requirements. First, due to the site's existing topography – which is not level and slopes from north to south – the proposed grading plan must raise the ground elevation of the southern portion of the site while simultaneously lowering the northern portion of the site in order to create a pad that can support a safe building design and parking areas that meet minimum safety and accessibility requirements while, also, safely and effectively convey stormwater runoff through the Project site. Second, the Project would be constructed as a speculative building and the building height is comparable to the typical building height for new light industrial buildings in the Inland Empire; these buildings are designed to accommodate the minimum interior clear height and equipment and storage specifications that operators of these buildings require.

4.1.8 SIGNIFICANCE OF IMPACTS AFTER MITIGATION

Threshold a: Significant and Unavoidable Direct Impact. As noted in the preceding section, no mitigation is available to reduce or avoid the Project's substantial effect to views of Reche Canyon and the Badlands (and the San Bernardino Mountains beyond) from the Encelia Avenue segment abutting the Project site (and located west of Shubert Street) or the Project's potential substantial effect to views of Mount Russell and its foothills



from Eucalyptus Avenue. Accordingly, the loss of scenic vistas represents a significant and unavoidable direct impact of the Project.



4.2 AIR QUALITY

This Subsection is based primarily on six (6) technical studies that were prepared by Urban Crossroads, Inc. to evaluate the potential for Project-related construction and operational activities to result in adverse effects on local and regional air quality. The first two reports are air quality impact analyses, titled, 1) “Moreno Valley Trade Center Warehouse Air Quality Impact Analysis,” dated October 9, 2020; and 2) “Moreno Valley Trade Center E-Commerce Air Quality Impact Analysis,” dated October 9, 2020. The air quality impact analyses are included as *Technical Appendices B1 and B2*, respectively, to this EIR (Urban Crossroads, 2020a; Urban Crossroads, 2020b). The third and fourth analyses are mobile source health risk assessments, titled, 3) “Moreno Valley Trade Center Warehouse Mobile Source Health Risk Assessment,” dated October 9, 2020; and 4) “Moreno Valley Trade Center E-Commerce Mobile Source Health Risk Assessment,” dated January 7, 2021. The mobile source health risk assessments are included as *Technical Appendices B3 and B4*, respectively, to this EIR (Urban Crossroads, 2020c; Urban Crossroads, 2021a). The fifth and sixth analyses address potential air quality effects in the event the Project includes cold storage, titled: 5) “Moreno Valley Trade Center (Warehouse Scenario) Air Quality, Greenhouse Gas, & Health Risk Assessment Evaluation,” dated October 9, 2020; and 6) “Moreno Valley Trade Center (E-Commerce Scenario) Air Quality, Greenhouse Gas, & Health Risk Assessment Evaluation,” dated October 9, 2020.” These reports are included as *Technical Appendices B5 and B6*, respectively, to this EIR (Urban Crossroads, 2020d; Urban Crossroads, 2020e). Refer to Section 7.0, *References*, for a complete list of reference sources used in this Subsection.

4.2.1 EXISTING CONDITIONS

A. Atmospheric Setting

The Project site is located in the South Coast Air Basin (SCAB, or “Basin”), which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAB encompasses approximately 6,745 square miles and includes portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County. The SCAB is bound by the Pacific Ocean to the west; the San Gabriel, San Bernardino, and the San Jacinto Mountains to the north and east, respectively; and the San Diego County line to the south.

B. Regional Climate and Methodology

The regional climate – temperature, wind, humidity, precipitation, and the amount of sunshine – has a substantial influence on air quality. The SCAB’s distinctive climate is determined by its terrain and geographical location, which comprises a coastal plain connected to broad valleys and low hills bounded by the Pacific Ocean in the southwest quadrant with high mountains forming the remainder of the perimeter. The SCAB is semi-arid, with average annual temperatures varying from the low-to-middle 60s, measured in degrees Fahrenheit (F); however, the air near the land surface is quite moist on most days because of the presence of a marine layer. This shallow layer of sea air is an important modifier of the SCAB’s climate. Humidity restricts visibility in the SCAB and the relative high humidity heightens the conversion of sulfur dioxide to sulfates. The marine layer provides an environment for that conversion process, especially during the spring and summer months. Inland areas of the SCAB, including where the Project site is located, show more variability in annual minimum/maximum temperatures and lower average humidity than coastal areas within the SCAB due to decreased marine influence.



More than 90 percent of the SCAB's rainfall occurs between November and April. The annual average rainfall within the SCAB varies between approximately nine (9) inches in Riverside to 14 inches in downtown Los Angeles. Monthly and yearly rainfall totals are extremely variable. Summer rainfall usually consists of widely scattered thunderstorms near the coast and slightly heavier shower activity in the eastern portion of the SCAB. Due to its generally clear weather, about three-quarters of available sunshine is received in the SCAB; the remaining one-quarter is absorbed by clouds. The abundant amount of sunshine (and its associated ultraviolet radiation) is a key factor to the photochemical reactions of air pollutants in the SCAB.

Dominant airflow direction and speed are the driving mechanisms for transport and dispersion of air pollution. During the late autumn to early spring rainy season, the SCAB is subjected to wind flows associated with storms moving through the region from the northwest. This period also brings five to 10 periods of strong, dry offshore winds, locally termed "Santa Anas" each year. During the dry season, which coincides with the months of maximum photochemical smog concentrations, the wind flow is bimodal, typified by a daytime onshore sea breeze and a nighttime offshore drainage wind. Summer wind flows are created by the pressure differences between the relatively cold ocean and the unevenly heated and cooled land surfaces that modify the general northwesterly wind circulation over southern California. During the nighttime, heavy, cool air descends mountain slopes and flows through the mountain passes and canyons as it follows the lowering terrain toward the ocean.

In the SCAB, there are two distinct temperature inversion structures that control the vertical mixing of air pollution. During the summer, warm high-pressure descending (subsiding) air is undercut by a shallow layer of cool marine air. The boundary between these two layers of air is a persistent marine subsidence/inversion. This boundary prevents vertical mixing which effectively acts as an impervious lid to pollutants over the entire SCAB. The mixing height for the inversion structure is normally situated 1,000 to 1,500 feet above mean sea level. A second inversion-type forms in conjunction with the drainage of cool air off the surrounding mountains at night followed by the seaward drift of this pool of cool air. The top of this layer forms a sharp boundary with the warmer air aloft and creates nocturnal radiation inversions. These inversions occur primarily in the winter, when nights are longer and onshore flow is weakest. They are typically only a few hundred feet above mean sea level. These inversions effectively trap pollutants, such as nitrogen oxides and carbon monoxide, as the pool of cool air drifts seaward. Winter is therefore a period of high levels of primary pollutants along the coastline.

Refer to Sections 2.2 and 2.3 of *Technical Appendices B1 and B2* for a detailed description of regional climate and wind patterns.

C. Air Quality Pollutants and Associated Human Health Effects

The federal government and State of California have established maximum permissible concentrations for common air pollutants that may pose a risk to human health or would otherwise degrade air quality and adversely affect the environment. These regulated air pollutants are referred to as "criteria pollutants." Refer to Section 2.4 of *Technical Appendices B1 and B2* for a detailed discussion of common criterial pollutants in the SCAB, their sources, and associated effects to human health. The text below provides a brief overview of the information presented in Section 2.4 of *Technical Appendices B1 and B2*.



- **Carbon Monoxide (CO)** is a colorless, odorless gas produced by the incomplete combustion of carbon-containing fuels, such as gasoline or wood. CO concentrations tend to be the highest in the winter during the morning, when there is little to no wind and surface-based inversions trap the pollutant at ground levels. CO is emitted directly from internal combustion engines; therefore, motor vehicles operating at slow speeds are the primary source of CO and the highest ambient CO concentrations in the SCAB are generally found near congested transportation corridors and intersections. Inhaled CO does not directly affect the lungs but affects tissues by interfering with oxygen transport and competing with oxygen to combine with hemoglobin present in the blood to form carboxyhemoglobin (COHb). Therefore, health conditions with an increased demand for oxygen supply can be adversely affected by exposure to CO. The most common symptoms associated with CO exposure include headache, nausea, vomiting, dizziness, fatigue, and muscle weakness. Individuals most at risk to the effects of CO include fetuses, patients with diseases involving heart and blood vessels, and patients with chronic oxygen deficiency.
- **Sulfur Dioxide (SO₂)** is a colorless gas or liquid. SO₂ enters the atmosphere as a pollutant mainly as a result of burning high sulfur-content fuel oils and coal and from chemical processes occurring at chemical plants and refineries. When SO₂ oxidizes in the atmosphere, it forms sulfates (SO₄). Collectively, these pollutants are referred to as sulfur oxides (SO_x). SO₂ is a respiratory irritant to people afflicted with asthma. After a few minutes' exposure to low levels of SO₂, asthma sufferers can experience breathing difficulties, including airway constriction and reduction in breathing capacity. Although healthy individuals do not exhibit similar acute breathing difficulties in response to SO₂ exposure at low levels, animal studies suggest that very high levels of exposure can cause lung edema (fluid accumulation), lung tissue damage, and sloughing off of cells lining the respiratory tract.
- **Nitrogen Oxides (NO_x)** consist of nitric oxide (NO), nitrogen dioxide (NO₂) and nitrous oxide (N₂O) and are formed when nitrogen (N₂) combines with oxygen (O₂). Their lifespan in the atmosphere ranges from one to seven days for nitric oxide and nitrogen dioxide, to 170 years for nitrous oxide. Nitrogen oxides are typically created during combustion processes, and are major contributors to smog formation and acid deposition. NO₂ is a criteria air pollutant, and may result in numerous adverse health effects; it absorbs blue light, resulting in a brownish-red cast to the atmosphere, and reduced visibility. Of the nitrogen oxide compounds, NO₂ is the most abundant in the atmosphere. As ambient concentrations of NO₂ are related to traffic density, commuters in heavy traffic may be exposed to higher concentrations of NO₂ than those indicated by regional monitoring stations. Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants), is associated with long-term exposure to NO₂. Short-term exposure to NO₂ can result in resistance to air flow and airway contraction in healthy subjects. Exposure to NO₂ can result decreases in lung functions in individuals with asthma or chronic obstructive pulmonary diseases (e.g., chronic bronchitis, emphysema).
- **Ozone (O₃)** is a highly reactive and unstable gas that is formed when volatile organic compounds (VOCs) and nitrogen oxides (NO_x), both byproducts of internal combustion engine exhaust, undergo slow photochemical reactions in the presence of sunlight. Ozone concentrations are generally highest during the summer months when direct sunlight, warm temperatures, and light wind conditions are favorable to the formation of this pollutant. Short-term exposure (lasting for a few hours) to ozone at levels typically observed in southern California can result in breathing pattern changes, reduction of



breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. Individuals exercising outdoors, children, and people with pre-existing lung disease, such as asthma and chronic pulmonary lung disease, are considered to be the most susceptible sub-groups for ozone effects. Children who participate in multiple outdoor sports and live in communities with high ozone levels have been found to have an increased risk for asthma.

- **Particulate Matter less than 10 microns (PM₁₀) and less than 2.5 microns (PM_{2.5})** are air pollutants consisting of tiny solid or liquid particles of soot, dust, smoke, fumes, and aerosols that are 10 microns or smaller or 2.5 microns or smaller, respectively. These particles are formed in the atmosphere from primary gaseous emissions that include sulfates formed from SO₂ release from power plants and industrial facilities and nitrates that are formed from NO_x release from power plants, automobiles, and other types of combustion sources. The chemical composition of fine particles is highly dependent on location, time of year, and weather conditions. The small size of PM₁₀ and PM_{2.5} allows them to enter the lungs where they may be deposited, resulting in adverse health effects. Elevated ambient concentrations of fine particulate matter (PM₁₀ and PM_{2.5}) have been linked to an increase in respiratory infections, number, and severity of asthma attacks, and increased hospital admissions. Some studies have reported an association between long-term exposure to air pollution dominated by fine particles and increased mortality, reduction in life-span, and an increased mortality from lung cancer. Daily fluctuations in PM_{2.5} concentration levels have also been related to hospital admissions for acute respiratory conditions in children, to a decrease in respiratory lung volumes in normal children, and to increased medication use in children and adults with asthma. Recent studies show lung function growth in children is reduced with long-term exposure to particulate matter. The elderly, people with pre-existing respiratory or cardiovascular disease, and children, appear to be the most susceptible to the effects of high levels of PM₁₀ and PM_{2.5}.
- **Volatile Organic Compounds (VOCs) and Reactive Organic Gasses (ROGs)** are a family of hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. Both VOCs and ROGs are precursors to ozone and contribute to the formation of smog through atmospheric photochemical reactions. Individual VOCs and ROGs have different levels of reactivity; that is, they do not react at the same speed or do not form ozone to the same extent when exposed to photochemical processes. VOCs often have an odor, including such common VOCs as gasoline, alcohol, and the solvents used in paints. Odors generated by VOCs can irritate the eye, nose, and throat, which can reduce respiratory volume. In addition, studies have shown that the VOCs that cause odors can stimulate sensory nerves to cause neurochemical changes that might influence health, for instance, by compromising the immune system.
- **Lead (Pb)** is a heavy metal that is highly persistent in the environment. Historically, the primary source of lead in the air was emissions from vehicles burning leaded gasoline. Currently, emissions of lead are largely limited to stationary sources such as lead smelters. Exposure to low levels of lead can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased lead levels are associated with increased blood pressure. Lead poisoning can cause anemia, lethargy, seizures, and death. Fetuses, infants, and children are more sensitive than others to the adverse effects of lead exposure.



D. Existing Air Quality

Air quality is evaluated in the context of ambient air quality standards published by the federal and State governments. These standards are the levels of air quality that are considered safe, with an adequate margin of safety, to protect the public health and welfare. The National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) currently in effect are detailed in Table 4.2-1, *Ambient Air Quality Standards*. In California, a region’s air quality is determined to be healthful or unhealthful by comparing pollutant levels in ambient air samples to the applicable NAAQS and CAAQS (as presented in Table 4.2-1).

Table 4.2-1 Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards ¹		National Standards ²		
		Concentration ³	Method ⁴	Primary ^{5a}	Secondary ^{5b}	Method ⁷
Ozone (O ₃) ⁶	1 Hour	0.09 ppm (180 µg/m ³)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m ³)		0.070 ppm (137 µg/m ³)		
Respirable Particulate Matter (PM ₁₀) ⁶	24 Hour	50 µg/m ³	Gravimetric or Beta Attenuation	150 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m ³		—		
Fine Particulate Matter (PM _{2.5}) ⁶	24 Hour	—	—	35 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m ³	Gravimetric or Beta Attenuation	12.0 µg/m ³		
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m ³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m ³)	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m ³)		9 ppm (10 mg/m ³)	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m ³)		—	—	
Nitrogen Dioxide (NO ₂) ⁶	1 Hour	0.18 ppm (339 µg/m ³)	Gas Phase Chemiluminescence	100 ppb (188 µg/m ³)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)		0.053 ppm (100 µg/m ³)	Same as Primary Standard	
Sulfur Dioxide (SO ₂) ⁶	1 Hour	0.25 ppm (655 µg/m ³)	Ultraviolet Fluorescence	75 ppb (196 µg/m ³)	—	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m ³)	
	24 Hour	0.04 ppm (105 µg/m ³)		0.14 ppm (for certain areas) ¹¹	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas) ¹¹	—	
Lead ^{12,13}	30 Day Average	1.5 µg/m ³	Atomic Absorption	—	Same as Primary Standard	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m ³ (for certain areas) ¹²		
	Rolling 3-Month Average	—		0.15 µg/m ³		
Visibility Reducing Particles ⁴	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 µg/m ³	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)	Ultraviolet Fluorescence			
Vinyl Chloride ⁶	24 Hour	0.01 ppm (26 µg/m ³)	Gas Chromatography			

Source: (Urban Crossroads, 2020a, Table 2-2; Urban Crossroads, 2020b, Table 2-2)



1. Regional Air Quality

☐ Criteria Pollutants

The SCAQMD monitors levels of various criteria pollutants at 37 monitoring stations and five (5) single-pollutant source Pb air monitoring sites throughout its jurisdiction (Urban Crossroads, 2020a, p. 23; Urban Crossroads, 2020b, p. 23). The attainment status for criteria pollutants within the SCAB is summarized in Table 4.2-2, *SCAB Criteria Pollutant Attainment Status*.

Table 4.2-2 SCAB Criteria Pollutant Attainment Status

Criteria Pollutant	State Designation	Federal Designation
O ₃ – 1-hour standard	Nonattainment	--
O ₃ – 8-hour standard	Nonattainment	Nonattainment
PM ₁₀	Nonattainment	Attainment
PM _{2.5}	Nonattainment	Nonattainment
CO	Attainment	Unclassifiable/Attainment
NO ₂	Attainment	Unclassifiable/Attainment
SO ₂	Unclassifiable/Attainment	Unclassifiable/Attainment
Pb ¹	Attainment	Unclassifiable/Attainment

Note: See Appendix 2.1 for a detailed map of State/National Area Designations within the SCAB

-- = The national 1-hour O₃ standard was revoked effective June 15, 2005.

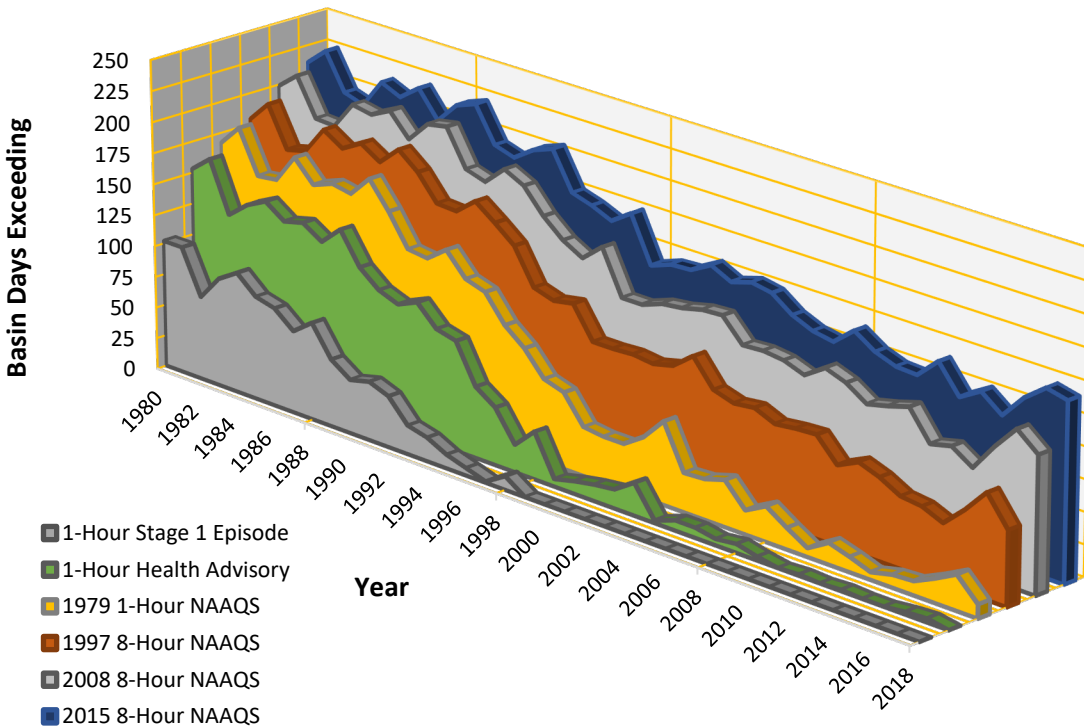
Source: (Urban Crossroads, 2020a, Table 2-3; Urban Crossroads, 2020b, Table 2-3)

The SCAB has been one of the most unhealthful air basins in the United States and has experienced unhealthful air quality since World War II (Urban Crossroads, 2020a, pp. 28-37; Urban Crossroads, 2020b, pp. 28-37). However, as a result of the region’s air pollution control efforts over the last 60+ years, criteria pollutant concentrations in the SCAB have reduced dramatically and are expected to continue to improve in the future as State regulations become more stringent (ibid.). Emissions of O₃, NO_x, VOC, and CO have been decreasing in the SCAB since 1975 and are projected to continue to decrease beyond 2020 (ibid.). These decreases result primarily from motor vehicle controls and reductions in evaporative emissions. Although vehicle miles traveled (VMT) in the SCAB continue to increase, NO_x and VOC levels are decreasing because of federal and State mandated controls on motor vehicles and the replacement of older polluting vehicles with lower-emitting vehicles (ibid.). NO_x emissions from electric utilities have also decreased due to use of cleaner fuels and renewable energy (ibid.). O₃ contour maps show that the number of days exceeding the 8-hour NAAQS decreased between 1997 and 2007 (ibid.). In the 2007 period, there was an overall decrease in exceedance days compared with the 1997 period (ibid.). However, as shown on Figure 4.2-1, *South Coast Air Basin Ozone Trend*, O₃ levels have increased in the past two years due to higher temperatures and stagnant weather conditions. Notwithstanding, O₃ levels in the SCAB have decreased substantially over the last 30 years with the current maximum measured concentrations being approximately one-third of concentrations within the late 1970s (ibid.).

¹ The Federal nonattainment designation for lead is only applicable towards the Los Angeles County portion of the SCAB.



Figure 4.2-1 South Coast Air Basin Ozone Trend



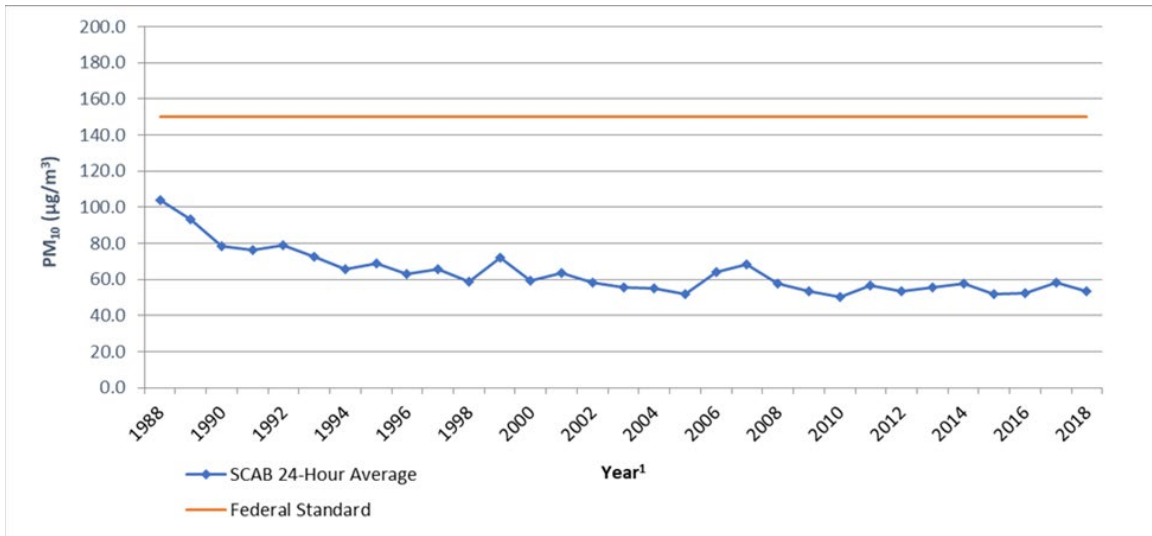
Source: (Urban Crossroads, 2020a, Table 2-5; Urban Crossroads, 2020b, Table 2-5)

As with other pollutants, the most recent PM_{10} statistics show an overall improvement as illustrated in Figure 4.2-2, *South Coast Air Basin PM_{10} Trend (Federal Standard)*, and Figure 4.2-3, *South Coast Air Basin PM_{10} Trend (State Standard)*. During the period for which data are available, the 24-hour national annual average concentration for PM_{10} decreased by approximately 48 percent, from $103.7 \mu\text{g}/\text{m}^3$ in 1988 to $53.5 \mu\text{g}/\text{m}^3$ in 2018 (Urban Crossroads, 2020a, p. 30; Urban Crossroads, 2020b, p. 30). Although the values are below the federal standard, it should be noted that there are days within the year where the concentrations will exceed the threshold (ibid.). Although data in the late 1990's show some variability, this is likely due to the advances in meteorological science rather than a change in emissions (ibid.). Similar to the ambient concentrations, the calculated number of days above the 24-hour PM_{10} standards has also shown an overall drop (ibid.).

Figure 4.2-4, *South Coast Air Basin $PM_{2.5}$ Trend (Federal Standard)*, and Figure 4.2-5, *South Coast Air Basin $PM_{2.5}$ Trend (State Standard)*, show the most recent 24-hour average $PM_{2.5}$ concentrations in the SCAB from 1999 through 2018. Overall, the national and State annual average concentrations decreased by almost 52 percent and 33 percent, respectively (Urban Crossroads, 2020a, p. 31; Urban Crossroads, 2020b, p. 31). It should be noted that the SCAB is currently designated as nonattainment for the State and federal $PM_{2.5}$ standards (ibid.).

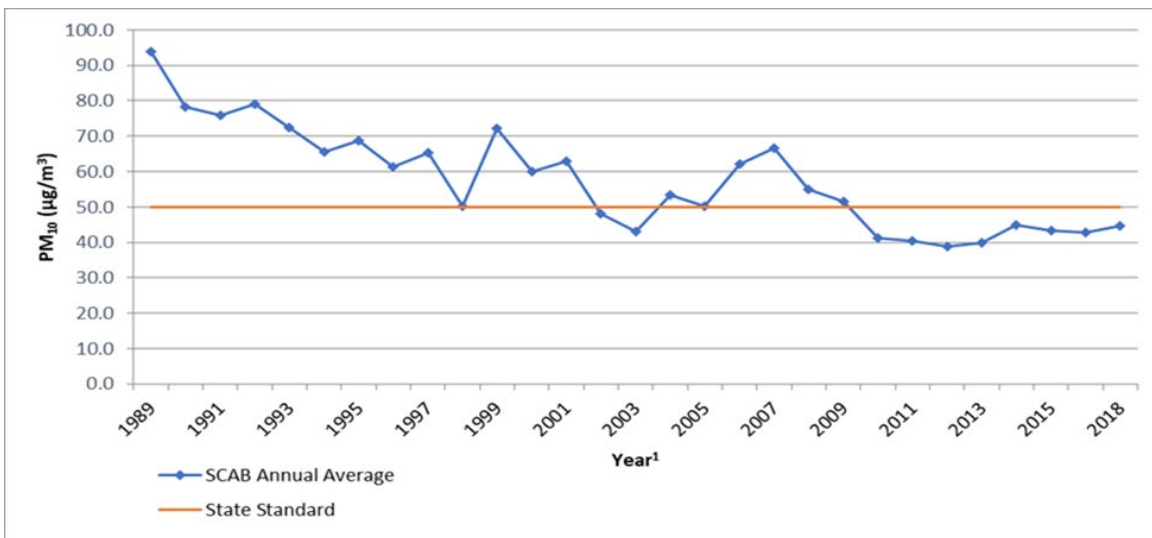


Figure 4.2-2 South Coast Air Basin PM₁₀ Trend (Federal Standard)



Source: (Urban Crossroads, 2020a, Table 2-6; Urban Crossroads, 2020b, Table 2-6)

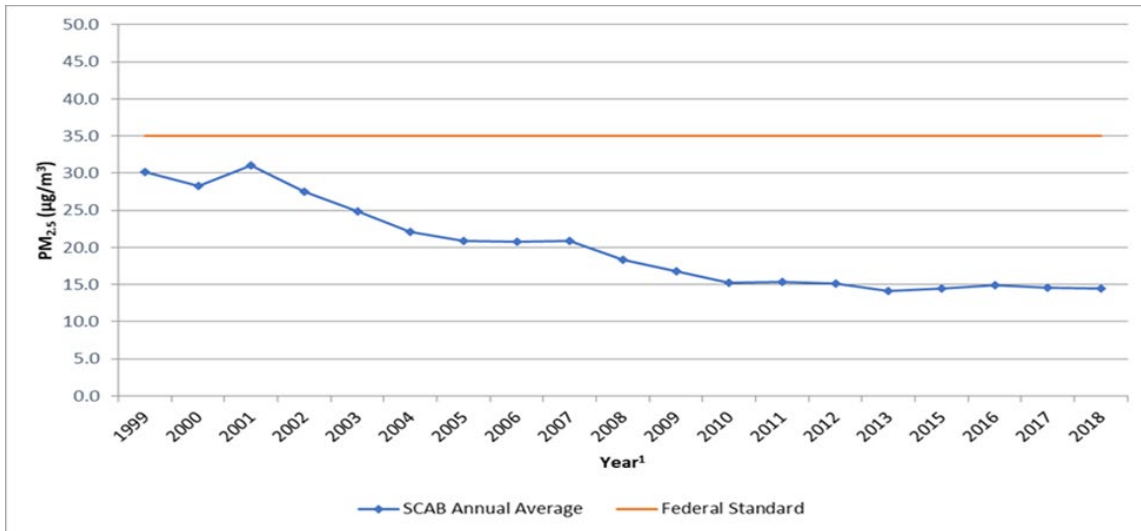
Figure 4.2-3 South Coast Air Basin PM₁₀ Trend (State Standard)



Source: (Urban Crossroads, 2020a, Table 2-7; Urban Crossroads, 2020b, Table 2-7)

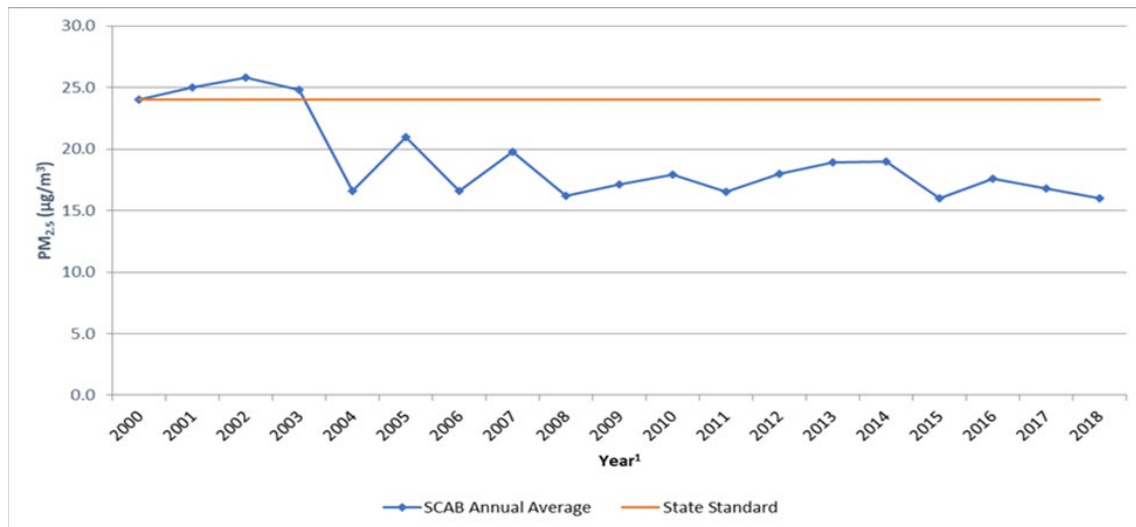


Figure 4.2-4 South Coast Air Basin PM_{2.5} Trend (Federal Standard)



Source: (Urban Crossroads, 2020a, Table 2-8; Urban Crossroads, 2020b, Table 2-8)

Figure 4.2-5 South Coast Air Basin PM_{2.5} Trend (State Standard)

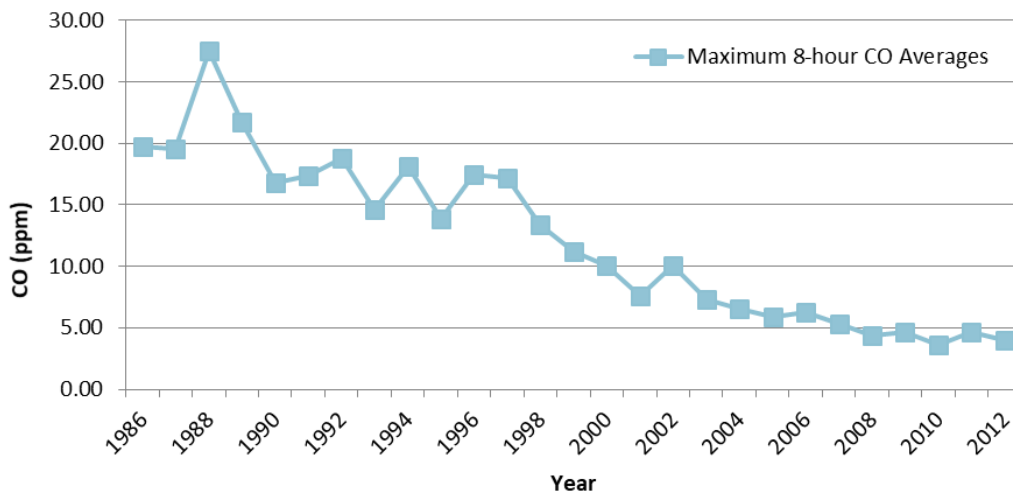


Source: (Urban Crossroads, 2020a, Table 2-9; Urban Crossroads, 2020b, Table 2-9)



The most recent CO concentrations in the SCAB are shown in Figure 4.2-6, *South Coast Air Basin 24-Hour Average CO Trend*. It should be noted 2012 is the most recent year where 8-hour CO averages and related statistics are available in the SCAB. CO concentrations in the SCAB have decreased markedly – a total decrease of more about 80 percent in the peak 8-hour concentration since 1986 (Urban Crossroads, 2020a, p. 33; Urban Crossroads, 2020b, p. 33). The number of exceedance days has also declined (ibid.). The entire SCAB is now designated as attainment for both the State and national CO standards (ibid.). Ongoing reductions from motor vehicle control programs should continue the downward trend in ambient CO concentrations (ibid.).

Figure 4.2-6 South Coast Air Basin 24-Hour Average CO Trend

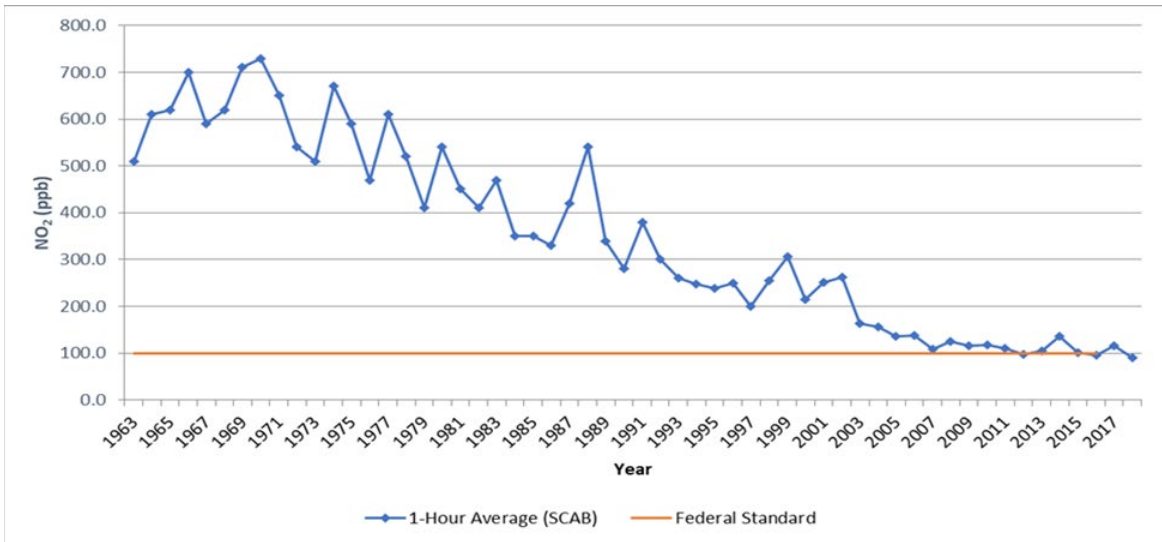


Source: (Urban Crossroads, 2020a, Table 2-10; Urban Crossroads, 2020b, Table 2-10)

The most recent NO₂ data for the SCAB is shown in Figure 4.2-7, *South Coast Air Basin NO₂ Trend (Federal Standard)*, and Figure 4.2-8, *South Coast Air Basin NO₂ Trend (State Standard)*. Over the last 50 years, NO₂ values have decreased significantly; the peak 1-hour national and State averages for 2018 are approximately 82 percent lower than reported for 1963 (Urban Crossroads, 2020a, p. 34; Urban Crossroads, 2020b, p. 34). The SCAB attained the State 1-hour NO₂ standard in 1994, bringing the entire State of California into attainment (ibid.). A new State annual average standard of 0.030 parts per million was adopted by the ARB in February 2007. The new standard is just barely exceeded in the SCAB today (ibid.). NO₂ is formed from NO_x emissions, which also contribute to O₃. As a result, the majority of the future emission control measures will be implemented by the State as part of the overall ozone control strategy. Many of these control measures will target mobile (vehicle tailpipe) sources, which account for more than three-quarters of California’s NO_x emissions (ibid.). These State-mandated control measures are expected to bring the SCAB into attainment of the State annual average standard (ibid.).

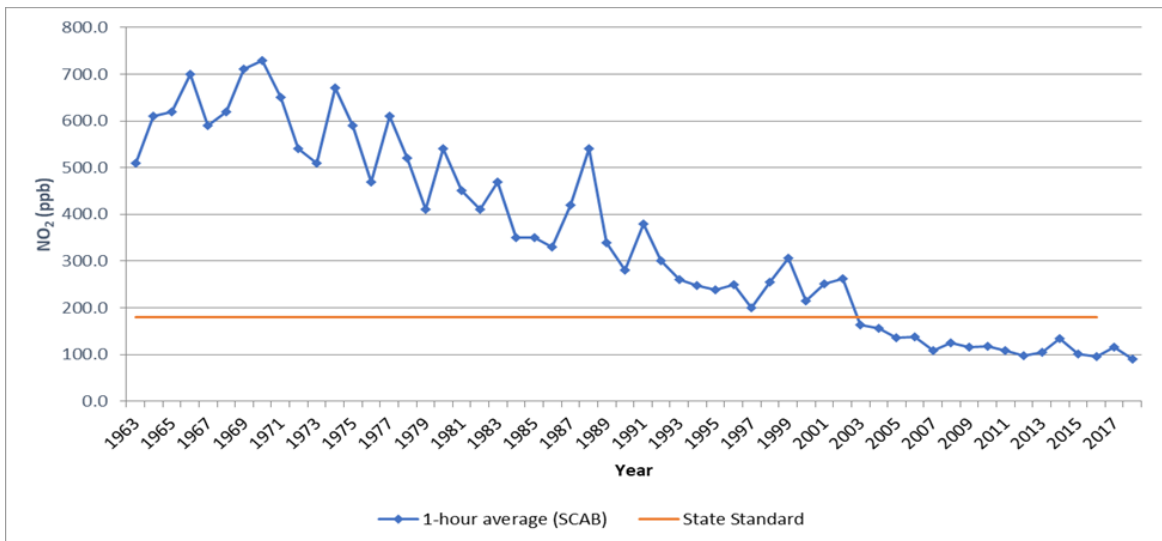


Figure 4.2-7 South Coast Air Basin NO₂ Trend (Federal Standard)



Source: (Urban Crossroads, 2020a, Table 2-11; Urban Crossroads, 2020b, Table 2-11)

Figure 4.2-8 South Coast Air Basin NO₂ Trend (State Standard)



Source: (Urban Crossroads, 2020a, Table 2-12; Urban Crossroads, 2020b, Table 2-12)

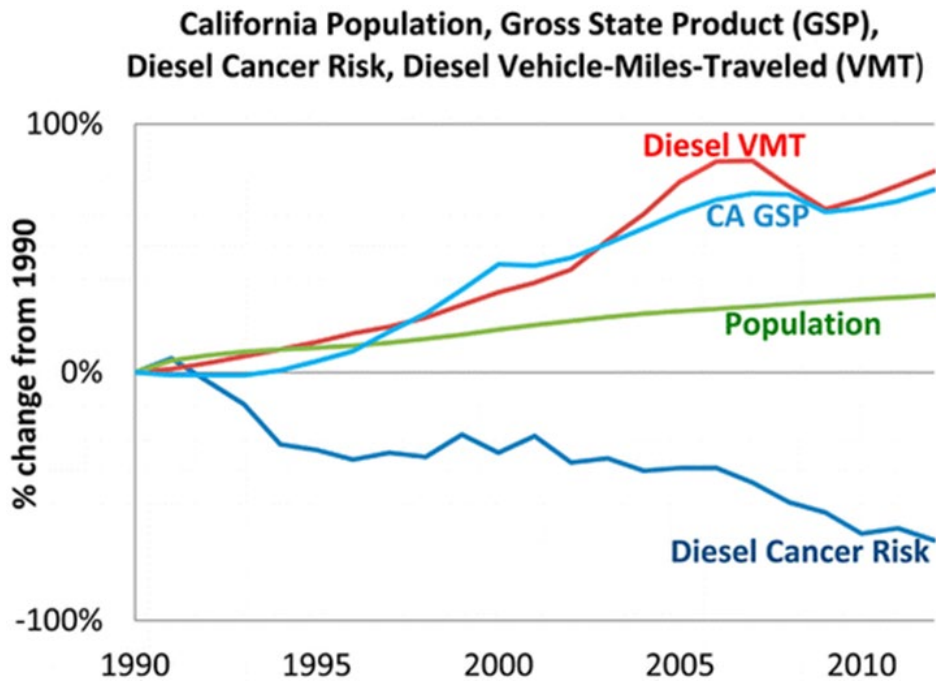
☐ Toxic Air Contaminants

Toxic air contaminants (TACs) are a classification of air pollutants that have been attributed to carcinogenic and non-carcinogenic health risks. Beginning in the mid-1980s, the California Air Resources Board (CARB) adopted a series of regulations to reduce the amount of air toxic contaminant emissions resulting from mobile and stationary sources, such as cars, trucks, stationary sources, and consumer products. As a result of CARB’s regulatory efforts, ambient concentrations of TACs have declined substantially across the State (Urban Crossroads, 2020a, p. 35; Urban Crossroads, 2020b, p. 35).



To reduce TAC emissions from mobile sources, CARB has required that all light- and medium-duty vehicles sold in California since 1996 be equipped with an on-board diagnostic system to alert drivers of potential engine problems (as approximately half of all tailpipe emissions result from malfunctioning emissions control devices). Also, since 1996, CARB has required the use of cleaner burning, reformulated gasoline in all light- and medium-duty vehicles. These two regulations resulted in an over 80 percent reduction in TAC emissions from light- and medium-duty vehicles in the State between 1990 and 2012 despite an approximately 30 percent increase in the State’s population over that same time period (Urban Crossroads, 2020a, pp. 35-36; Urban Crossroads, 2020b, pp. 35-36). The CARB also implemented programs to retrofit diesel-fueled engines and facilitate the use of diesel fuels with ultra-low sulfur content to minimize the amount of diesel emissions and their associated TACs. As a result of CARB’s programs, diesel emissions and their associated TACs fell by approximately 68 percent since 2000 despite an approximately 81 percent increase in miles traveled by diesel vehicles during that same time period, as shown on Figure 4.2-9, *Diesel Particulate Matter and Diesel Vehicle Miles Trend* (ibid.). Moreover, the average statewide DPM emissions for Heavy Duty Trucks (HDT), in terms of grams of DPM generated per mile traveled, are projected to dramatically reduce due to regulatory requirements on vehicular emissions adopted by CARB and the Ports of Los Angeles and Long Beach (ibid.). CARB’s efforts at reducing stationary source TACs have been focused mainly on the dry cleaning and paint/architectural coating industries, which have resulted in a greater than 85 percent reduction of stationary source TACs across the State between 1990 and 2012 (ibid.).

Figure 4.2-9 Diesel Particulate Matter and Diesel Vehicle Miles Trend



Source: (Urban Crossroads, 2020a, Exhibit 2-A; Urban Crossroads, 2020b, Exhibit 2-A)

In 2000, the SCAQMD prepared a comprehensive urban toxic air pollution study to evaluate the TAC concentration levels in the SCAB and their associated health risks, called *MATES-II (Multiple Air Toxics Exposure Study in the South Coast Air Basin)*. *MATES-II* showed an average regional excess cancer risk of about 1,400 in one million. As part of the *MATES-II* study, the SCAQMD concluded that diesel particulate



matter (DPM) accounted for more than 70 percent of the identified excess cancer risk in the SCAB. The SCAQMD has updated their urban toxic air pollution survey twice since 2000, with the 2008 (*MATES-III*) and 2014 updates (*MATES-IV*) both showing reductions in the average excess cancer risk within the SCAB relative to the levels disclosed in *MATES-II*. The current version of the urban toxic air pollution survey, *MATES-IV*, is the most comprehensive dataset of ambient air toxic levels and health risks within the SCAB. The *MATES-IV* report estimates the average Basin-wide excess cancer risk level within the SCAB to be 418 in one million, an approximately 70 percent improvement from the findings of *MATES-II* report just 15 years earlier (Urban Crossroads, 2020a, p. 37; Urban Crossroads, 2020b, p. 37; SCAQMD, 2015, p. 2-11). According to SCAQMD, DPM accounts for approximately 68 percent of the total risk shown in *MATES-IV* (*ibid.*).

2. Local Air Quality

Criteria Pollutants

Ambient air pollutant concentrations in the Project area are summarized in Table 4.2-3, *Project Area Air Quality Monitoring Summary*. Local air quality data was collected from the SCAQMD air quality monitoring station located nearest to the Project site: Perris Valley monitoring station (located approximately 10.1 miles southwest of the Project site for O₃ and PM₁₀); San Geronio Pass monitoring station (located approximately 16.5 miles east of the Project site for NO₂); Elsinore Valley monitoring station (located approximately 18.3 miles southwest for CO); Metropolitan Riverside County monitoring station (located approximately 16.0 miles northwest for PM_{2.5}) (Urban Crossroads, 2020a, pp. 23-24; Urban Crossroads, 2020b, pp. 23-24). Data was collected for the three most recent years for which data was available (2016-2018).

Toxic Air Contaminants

As part of preparation of the *MATES-IV* study, the SCAQMD collected toxic air contaminant data at 10 fixed sites within the SCAB. None of the fixed monitoring sites are located within the vicinity of the Project Site; however, *MATES-IV* extrapolates the excess cancer risk levels throughout the SCAB using mathematical modeling for specific geographic grids. *MATES-IV* estimates an excess carcinogenic risk of approximately 658.73 in one million for the Project area (Urban Crossroads, 2020a, p. 37; Urban Crossroads, 2020b, p. 37; SCAQMD, 2015).

4.2.2 REGULATORY SETTING

The following is a brief description of applicable federal, State, and local environmental laws and related regulations governing air quality emissions.

A. **Federal Plans, Policies, and Regulations**

1. ***Federal Clean Air Act***

The Clean Air Act (CAA; 42 U.S.C. § 7401 *et seq.*) is the comprehensive federal law that regulates air emissions from stationary and mobile sources. Among other things, this law authorizes Environmental Protection Agency (EPA) to establish National Ambient Air Quality Standards (NAAQS) to protect public health and public welfare and to regulate emissions of hazardous air pollutants, which include O₃, CO, NO_x, SO₂, PM₁₀, PM_{2.5}, and lead (EPA, 2019f).



Table 4.2-3 Project Area Air Quality Monitoring Summary

Pollutant	Standard	Year		
		2016	2017	2018
O₃				
Maximum Federal 1-Hour Concentration (ppm)		0.131	0.120	0.117
Maximum Federal 8-Hour Concentration (ppm)		0.098	0.105	0.103
Number of Days Exceeding State 1-Hour Standard	> 0.09 ppm	23	33	31
Number of Days Exceeding State/Federal 8-Hour Standard	> 0.070 ppm	56	80	67
CO				
Maximum Federal 1-Hour Concentration	> 35 ppm	1.2	1.2	1.1
Maximum Federal 8-Hour Concentration	> 20 ppm	0.6	0.8	0.8
NO₂				
Maximum Federal 1-Hour Concentration	> 0.100 ppm	0.047	0.056	0.051
Annual Federal Standard Design Value		0.008	0.008	0.009
PM₁₀				
Maximum Federal 24-Hour Concentration (µg/m ³)	> 150 µg/m ³	76	75	104
Annual Federal Arithmetic Mean (µg/m ³)		32.2	32.2	22.4
Number of Days Exceeding Federal 24-Hour Standard	> 150 µg/m ³	0	0	0
Number of Days Exceeding State 24-Hour Standard	> 50 µg/m ³	5	11	9
PM_{2.5}				
Maximum Federal 24-Hour Concentration (µg/m ³)	> 35 µg/m ³	39.12	50.3	50.7
Annual Federal Arithmetic Mean (µg/m ³)	> 12 µg/m ³	12.54	12.18	12.41
Number of Days Exceeding Federal 24-Hour Standard	> 35 µg/m ³	4	6	2

ppm= Parts Per Million

Source: (Urban Crossroads, 2020a, Table 2-4; Urban Crossroads, 2020b, Table 2-4)

One of the goals of the CAA was to set and achieve NAAQS in every state by 1975 in order to address the public health and welfare risks posed by certain widespread air pollutants. The setting of these pollutant standards was coupled with directing the states to develop state implementation plans (SIPs), applicable to appropriate industrial sources in the state, in order to achieve these standards. The CAA was amended in 1977 and 1990 primarily to set new goals (dates) for achieving attainment of NAAQS since many areas of the country had failed to meet the deadlines.

The sections of the federal CAA most directly applicable to the development of the Project site include Title I (Non-Attainment Provisions) and Title II (Mobile Source Provisions). Title I provisions address the urban air pollution problems of ozone (smog), carbon monoxide (CO), and particulate matter (PM₁₀) (EPA, 2017a). Specifically, it clarifies how areas are designated and re-designated "attainment." It also allows EPA to define the boundaries of "nonattainment" areas: geographical areas whose air quality does not meet federal air quality standards designed to protect public health. Mobile source emissions are regulated in accordance with the



CAA Title II provisions. These standards are intended to reduce tailpipe emissions of hydrocarbons, CO, and NO_x on a phased-in basis that began in model year 1994. Automobile manufacturers also are required to reduce vehicle emissions resulting from the evaporation of gasoline during refueling. These provisions further require the use of cleaner burning gasoline and other cleaner burning fuels such as methanol and natural gas (EPA, 2017b).

Section 112 of the Clean Air Act addresses emissions of hazardous air pollutants. Prior to 1990, CAA established a risk-based program under which only a few standards were developed. The 1990 Clean Air Act Amendments revised Section 112 to first require issuance of technology-based standards for major sources and certain area sources. "Major sources" are defined as a stationary source or group of stationary sources that emit or have the potential to emit 10 tons per year or more of a hazardous air pollutant or 25 tons per year or more of a combination of hazardous air pollutants (EPA, 2019f). An "area source" is any stationary source that is not a major source (*ibid.*).

For major sources, Section 112 requires that EPA establish emission standards that require the maximum degree of reduction in emissions of hazardous air pollutants. These emission standards are commonly referred to as "maximum achievable control technology" or "MACT" standards. Eight years after the technology-based MACT standards are issued for a source category, EPA is required to review those standards to determine whether any residual risk exists for that source category and, if necessary, revise the standards to address such risk (EPA, 2019f).

2. *SmartWay Program*

The US EPA's SmartWay Program is a voluntary public-private program developed in 2004, which 1) provides a comprehensive and well-recognized system for tracking, documenting and sharing information about fuel use and freight emissions across supply chains; 2) helps companies identify and select more efficient freight carriers, transport modes, equipment, and operational strategies to improve supply chain sustainability and lower costs from goods movement; 3) supports global energy security and offsets environmental risk for companies and countries; and 4) reduces freight transportation-related emissions by accelerating the use of advanced fuel-saving technologies (EPA, 2017c). This program is supported by major transportation industry associations, environmental groups, State and local governments, international agencies, and the corporate community.

B. State Plans, Policies, and Regulations

1. California Clean Air Act (CCAA)

The California Clean Air Act (CCAA) establishes numerous requirements for district plans to attain state ambient air quality standards for criteria air contaminants (SCAQMD, 2020). AB 2595 mandates achievement of the maximum degree of emissions reductions possible from vehicular and other mobile sources in order to attain the State's ambient air quality standards, the California Ambient Air Quality Standards (CAAQS), by the earliest practical date. The CARB established the CAAQS for all pollutants for which the federal government has NAAQS and, in addition, established standards for sulfates, visibility, hydrogen sulfide, and vinyl chloride. Generally, the CAAQS are more stringent than the NAAQS. For districts with serious air



pollution, its attainment plan should include the following: no net increase in emissions from new and modified stationary sources; and best available retrofit technology for existing sources.

2. *Air Quality Management Planning*

The California Air Resources Board (CARB) and local air districts throughout the State are responsible for developing clean air plans to demonstrate how and when California will attain air quality standards established under both the CAA and CCAA (CARB, 2019a). For the areas within California that have not attained air quality standards, CARB works with local air districts to develop and implement State and local attainment plans. In general, attainment plans contain a discussion of ambient air quality data and trends; a baseline emissions inventory; future year projections of emissions, which account for growth projections and already adopted control measures; a comprehensive control strategy of additional measures needed to reach attainment; an attainment demonstration, which generally involves complex modeling; and contingency measures. Plans may also include interim milestones for progress toward attainment. Air quality planning activities undertaken by CARB also include the development of policies, guidance, and regulations related to State and federal ambient air quality standards; coordination with local agencies on transportation plans and strategies; and providing assistance to local districts and transportation agencies.

3. *Truck & Bus Regulation*

Under the Truck and Bus Regulation, adopted by CARB in 2008, all diesel truck fleets operating in California are required to adhere to an aggressive schedule for upgrading and replacing heavy-duty truck engines (CARB, 2020a). Older, more polluting trucks are required to be replaced first, while trucks that already have relatively clean engines are not required to be replaced until later. Pursuant to the Truck and Bus Regulation, all pre-1994 heavy trucks (trucks with a gross vehicle weight rating greater than 26,000 pounds) were to be removed from service on California roads by 2015. Between 2015 and 2020, pre-2000 heavy trucks will be equipped with PM filters and will be upgraded or replaced with an engine that meets 2010 emissions standards. The upgrades/replacements will occur on a rolling basis based on model year. By 2023, all heavy trucks operating on California roads must have engines that meet 2010 emissions standards. Lighter trucks (those with a gross vehicle weight rating of 14,001 to 26,000 pounds) must adhere to a similar schedule, and will all be replaced by 2020.

4. *Advanced Clean Trucks Regulation*

In June, 2020, CARB adopted a new Rule requiring truck manufacturers to transition from diesel trucks and vans to electric zero-emission trucks beginning in 2024 (CARB, 2020d). By 2045, every new truck sold in California will be required to be zero-emission. Manufacturers who certify Class 2b-8 chassis or complete vehicles with combustion engines would be required to sell zero-emission trucks as an increasing percentage of their annual California sales from 2024 to 2035. By 2035, zero-emission truck/chassis sales would need to be 55% of Class 2b – 3 truck sales, 75% of Class 4 – 8 straight truck sales, and 40% of truck tractor sales. CARB reports that as of 2020, most commercially-available models of zero-emission vans, trucks and buses operate less than 100 miles per day. Commercial availability of electric-powered long-haul trucks is very limited. However, as technology advances over the next 20 years, zero-emission trucks will become suitable for more applications, and several truck manufacturers have announced plans to introduce market ready zero-emission trucks in the future. When commercial availability of electric-powered long-haul trucks is more



readily available, implementation of the Advanced Clean Trucks Regulation is anticipated to significantly further reduce criteria pollutant concentrations in the SCAB.

C. Local Plans, Policies, and Regulations

1. SCAQMD Air Quality Management Plan

Under existing conditions, the NAAQS and CAAQS are exceeded in most parts of the SCAB. In response, and in conformance with California Health & Safety Code Section 40702 *et seq.* and the California CAA, the SCAQMD adopted an Air Quality Management Plan (AQMP) to plan for the improvement of regional air quality. AQMPs are updated regularly in order to more effectively reduce emissions and accommodate growth. Each version of the plan is an update of the previous plan and has a 20-year horizon with a revised baseline. The SCAQMD's most recent iteration of the AQMP was adopted in March 2017 (SCAQMD, 2017). The Final 2016 Air Quality Management Plan (2016 AQMP) incorporates the latest scientific and technological information and local and regional land development plans, including the Southern California Association of Governments (SCAG) 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). The Final 2016 AQMP is based on current emissions modeling data, recent motor vehicle emissions information, and demographic data/projections provided by SCAG. The air quality pollutant levels projected in the Final 2016 AQMP are based on the assumption that buildout of the region will occur in accordance with local general plans and specific plans, and in accordance with growth projections identified by SCAG in its 2020 RTP/SCS.

2. Applicable SCAQMD Rules

The SCAQMD Rules that are applicable to construction and operation of the Project include, but are not limited to: Rule 402 (Nuisance); Rule 403 (Fugitive Dust); and Rule 1113 (Architectural Coatings) (Urban Crossroads, 2020a, pp. 2, 62; Urban Crossroads, 2020b, pp. 2, 62). Rule 402 prohibits the discharge of air contaminants that cause nuisance or annoyance to any considerable number of persons or to the public (SCAQMD, 1976). Rule 403 requires the implementation of best available dust control measures (BACMs) during activities capable of generating fugitive dust. Rule 403 also requires activities defined as "large operations" to notify the SCAQMD by submitting specific forms; a large operation is defined as any active operation on property containing 50 or more acres of disturbed surface area; or any earth moving operation with a daily earth-moving or throughput volume of 3,850 cubic meters (5,000 cubic yards), three times during the most recent 365 day period. (SCAQMD, 2005) Rule 1113 requires all buildings within the SCAQMD to adhere to the VOC limits for architectural coatings (SCAQMD, 2013).

4.2.3 METHODOLOGY FOR CALCULATING PROJECT-RELATED AIR QUALITY IMPACTS

The California Emissions Estimator Model (CalEEMod), version 2016.3.2, was used to calculate all Project-related air pollutant emissions (with the exception of localized emissions and diesel particulate matter emissions from Project operations, refer to Subsection 4.2.3B, below) (Urban Crossroads, 2020a, p. 40; Urban Crossroads, 2020b, p. 40). The CalEEMod is a Statewide land use emission computer model developed for the California Air Pollution Officers Association (CAPCOA) in collaboration with the California Air Districts, including the SCAQMD, that provides a uniform platform to quantify potential criteria pollutant emissions



associated with construction and operation of land development projects. CalEEMod defaults for mobile source emissions have been revised to reflect the latest EMFAC2017 emission rates published by CARB.

A. Methodology for Calculating Project Construction Emissions

1. Regional Pollutant Emissions

The Project's construction process would last approximately 19 months under both the warehouse distribution/logistics or fulfillment/e-commerce options. Project construction activities are assumed to occur between June 2021 and December 2022 for purposes of analysis in this EIR (refer to Table 3-1 in EIR Section 3.0), and will include six (6) activity phases: 1) demolition; 2) site preparation; 3) grading; 4) building construction; 5) paving; and 6) architectural coating. This assumption represents a "worst-case" analysis scenario because, should construction occur later than the dates assumed in the analysis, construction equipment emissions would be the same or more likely lower than presented because emission regulations are becoming more stringent over time and the retirement of older (higher-polluting) equipment and replacement with newer (less-polluting) pieces of equipment is constantly happening in response to State regulations or service needs (Urban Crossroads, 2020a, pp. 41-42; Urban Crossroads, 2020b, pp. 41-42). The air quality model for Project construction assumes the operation of the equipment listed in Table 3-2 in EIR Section 3.0. The analysis assumptions for Project construction duration and Project construction equipment are based on information provided by the Project Applicant and the experience and technical expertise of the Project's air quality technical expert (Urban Crossroads) (ibid.).

Refer to Section 3.4 of *Technical Appendices B1 and B2* for more detail on the methodology utilized to calculate the Project's estimated construction-related regional pollutant emissions.

2. Localized Pollutant Emissions

Project-related localized pollutant emissions were calculated in accordance with the SCAQMD's *Final Localized Significance Threshold Methodology*. The localized pollutant emissions analysis relies on the same assumptions used to calculate construction-related regional pollutant emissions, as described above. Pursuant to the SCAQMD's recommended methodology, the analysis of construction-related localized pollutant emissions included the following process (Urban Crossroads, 2020a, p. 52; Urban Crossroads, 2020b, p. 52):

The CalEEMod was utilized to determine the maximum daily on-site emissions that would occur during construction activity. The SCAQMD's *Fact Sheet for Applying CalEEMod to LSTs* was used to determine the maximum Project site acreage that would be actively disturbed based on the construction equipment fleet and equipment hours as estimated in the CalEEMod. SCAQMD's methodology recommends using look-up tables for projects less than or equal to five (5) acres in size and using dispersion modeling for projects greater than five (5) acres in size. The "acres disturbed" for analytical purposes are based on specific equipment type for each subcategory of construction activity and the estimated maximum area a given piece of equipment can pass over in an 8-hour workday. The equipment-specific disturbance rates were obtained from the CalEEMod user's guide, Appendix A: Calculation Details for CalEEMod (October 2017). It should be noted that the disturbed area per day is representative of a piece of equipment making multiple passes over the same land area. In other words, one Rubber Tired Dozer can make multiple passes over the same land area totaling 0.5 acres in a given 8-hour day. Although the Project is anticipated to disturb more than five (5) acres per day



during peak construction activities, for conservative purposes, the analysis assumes that all on-site emissions associated with the Project would occur within a concentrated five-acre area. Therefore, the SCAQMD's screening look-up tables were utilized to determine localized pollutant concentration levels at sensitive receptor locations near the Project site. Sensitive receptor locations are considered to be locations where children, the elderly, or an individual who might have respiratory difficulties could remain for 24 hours. A total of three (3) sensitive receptor locations were considered in the localized analysis, including existing dwelling units located north and south of the Project site (Urban Crossroads, 2020a, pp. 47-52; Urban Crossroads, 2020b, pp. 47-52). The existing residential homes located south of Encelia Avenue, approximately 118 feet south of the Project site, would be the closest sensitive receptors to the Project (ibid.).

The SCAQMD's *Final Localized Significance Threshold Methodology* indicates that off-site mobile emissions from development projects should be excluded from localized emissions analyses. Therefore, for purposes of calculating the Project's construction-related localized pollutant emissions, only emissions included in the CalEEMod on-site emissions outputs were considered (Urban Crossroads, 2020a, p. 49; Urban Crossroads, 2020b, p. 49).

Refer to Section 3.6 of *Technical Appendices B1 and B2* for more detail on the methodology utilized to calculate Project construction-related localized pollutant emissions.

B. Methodology for Calculating Project Operational Emissions

1. Regional Pollutant Emissions

The Project's operational-related regional pollutant emissions analysis quantifies air pollutant emissions from mobile sources, on-site equipment sources, area sources (e.g., architectural coatings, consumer products, landscape maintenance equipment), and energy sources associated with both warehouse distribution/logistics or fulfillment/e-commerce uses.

Mobile source emissions are the product of the number of daily vehicle trips generated by the Project, the composition of the Project's vehicle fleet (mix of passenger cars, light-heavy-duty trucks, medium-heavy-duty trucks, and heavy-heavy duty trucks), and the trip length (number of miles driven) by Project vehicles. The Project's average number of daily vehicle trips and vehicle fleet mixes were determined using the methodology described in detail in EIR Subsection 4.13, *Transportation*. For both the warehouse distribution/logistics option and the fulfillment/e-commerce option, two (2) separate model runs were utilized for cars and trucks in order to more accurately model emissions resulting from passenger car and truck operations. The first run analyzed passenger car emissions, incorporated the CalEEMod default trip length of 16.6 miles for passenger cars and an assumption of 100% primary trips. It is important to note that although the Project's traffic impact analyses (*Technical Appendices L1 and L2*) does not break down passenger cars by type, this analysis assumes that passenger cars include Light-Duty-Auto vehicles (LDA), Light-Duty-Trucks (LDT1 & LDT2), and Medium-Duty-Vehicles (MDV) vehicle types. In order to account for emissions generated by passenger cars, the fleet mix presented for warehouse distribution/logistics and fulfillment/e-commerce uses listed in Table 4.2-4 was utilized in this analysis.



Table 4.2-4 Passenger Car Fleet Mix

Land Use	Vehicle Type	%
Warehouse Distribution/Logistics	LDA	62.30
	LDT1	4.04
	LDT2	21.21
	MDV	12.44
Fulfillment/E-Commerce	LDA	62.30
	LDT1	4.04
	LDT2	21.21
	MDV	12.44

Source: (Urban Crossroads, 2020a, Table 3-5; Urban Crossroads, 2020b, Table 3-5)

The second run analyzed truck emissions, incorporated the SCAQMD recommended truck trip length of 40 miles and an assumption of 100% primary trucks. As mentioned above, in order to be consistent with the Project’s traffic impact analyses (*Technical Appendices L1 and L2*), trucks are broken down by truck type (i.e., light-heavy-duty trucks, medium-heavy-duty trucks, and heavy-heavy duty trucks). In order to account for emissions generated by trucks, the fleet mixes presented for warehouse distribution/logistics and fulfillment/e-commerce uses listed in Table 4.2-5 was utilized in this analysis.

Table 4.2-5 Truck Fleet Mix

Land use	Vehicle Type	%
Warehouse Distribution/Logistics	LHDT	16.95
	MHDT	22.71
	HHDT	60.34
Fulfillment/E-Commerce	LHDT	20.65
	MHDT	17.85
	HHDT	61.49

Source: (Urban Crossroads, 2020a, Table 3-6; Urban Crossroads, 2020b, Table 3-6)

The Project’s operational analysis also assumes the on-site operation of five (5) yard tractors (also known as a yard goat, utility tractor, hustler, yard hostler, or yard tractor) on the Project site for up to four (4) hours per day for all 365 days of the year under both the warehouse distribution/logistics and fulfillment/e-commerce options. Each yard tractor was assumed to be 200 horsepower and powered with gasoline or compressed natural gas (Urban Crossroads, 2020a, p. 46; Urban Crossroads, 2020b, p. 46).

The estimated area source emissions and energy source emissions analyses for the Project rely on default inputs within CalEEMod (Urban Crossroads, 2020a, pp. 44-45; Urban Crossroads, 2020b, pp. 44-45).

Refer to Section 3.5 of *Technical Appendices B1 and B2* for detailed information on the methodology utilized to calculate regional pollutant emissions during Project operation.



2. Localized Pollutant Emissions

The LST analysis evaluates on-site emissions sources only because the CalEEMod outputs do not separate on-site and off-site mobile source emissions. Notwithstanding, for purposes of analysis, on-site mobile source emissions are estimated to be equivalent to five percent (5%) of the Project's one-way vehicle trip length (Urban Crossroads, 2020a, pp. 53-54; Urban Crossroads, 2020b, pp. 53-54). Considering that for the Project's analysis the one-way trip length is 16.6 miles for passenger cars, 40 miles for truck trips, 5% of this total would represent an on-site travel distance of approximately 0.83-mile for passenger cars, and 2.0 miles for trucks. Comparatively, the actual maximum distance a passenger car or truck could travel through the Project's parking lots would be approximately 0.75-mile. Accordingly, the 5% assumption used in the Project's analysis substantially overstates the actual localized impact of the Project's on-site mobile source emissions.

The operational LST analysis utilizes the same sensitive receptor locations that were utilized in the construction LST analysis, as described earlier in this section.

Refer to Section 3.8 of *Technical Appendices B1 and B2* for detailed information on the methodology utilized to calculate the Project's operational localized pollutant emissions.

3. Diesel Particulate Matter Emissions

Diesel particulate matter (DPM) emissions from trucks traveling to and from the Project site were calculated using emission factors for PM₁₀ generated with EMFAC 2017 (Urban Crossroads, 2020c, pp. 7-12; Urban Crossroads, 2021a, pp. 7-12). Refer to Section 2.2 of *Technical Appendices B3 and B4* for a detailed description of the model inputs and equations used in the estimation of the Project-related DPM emissions.

The potential health risks of Project-related DPM emissions were quantified in accordance with the guidelines in the SCAQMD's Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis (Urban Crossroads, 2020c, pp. 13-15; Urban Crossroads, 2021a, pp. 13-15). Pursuant to SCAQMD's recommendations, emissions were modeled using the American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD) software program (*ibid.*). Refer to Section 2.3 of *Technical Appendices B3 and B4* for a detailed description of the model inputs and equations used in the calculation of average particulate concentrations during operation of the Project.

Health risks associated with exposure to DPM emissions at a given concentration are defined in terms of the probability of developing cancer or chronic non-cancer health effects as a result of exposure to DPM emissions at a given concentration (Urban Crossroads, 2020c, pp. 16-17; Urban Crossroads, 2021a, pp. 16-17). The cancer and non-cancer risk probabilities are determined through a series of equations to calculate unit risk factor, cancer potency factor, and chronic daily intake. The evaluation results in a maximum health risk value, which is merely a calculation of risk and does not necessarily mean anyone will contract cancer or other non-cancer health concern as a result of the exposure. The equations and input factors utilized in the Project analysis were obtained from Office of Environmental Health Hazard Assessment (OEHHA). Refer to Section 2.4 of *Technical Appendices B3 and B4* for a detailed description of the variable inputs and equations used in the calculations of receptor population health risks associated with Project operations.



In the analysis of potential Project-related DPM effects, potential cancer and non-cancer risks were calculated for the maximally exposed individual resident (MEIR), maximally exposed individual worker (MEIW), and maximally exposed individual school child (MEISC) located within a 1,320-foot radius of the Project site and the Project's primary truck routes. CARB and SCAQMD emissions models indicate that 80 percent of DPM particles settle out of the air within 1,000 feet from the emissions source. Accordingly, the 1,320-foot distance used in the Project's analysis provides a conservative study area that captures the geographic area subject to the maximum potential effect from Project-related DPM emissions. For the Project analysis, the MEIR is located approximately 118 feet south of the Project site and the MEIW occurs at Aldi Distribution Facility (located approximately 465 feet north of the Project site) (Urban Crossroads, 2020c, pp. 1-2). No schools are located within 0.25-mile of the Project site; therefore, the Project does not have the potential to expose school child receptors to substantial concentrations of DPM under either the warehouse distribution/logistics or e-commerce/fulfillment options (ibid.).

4.2.4 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant impact to air quality if the Project or any Project-related component would:

- a. *Conflict with or obstruct implementation of the applicable air quality plan;*
- b. *Result in a cumulatively-considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);*
- c. *Expose sensitive receptors to substantial pollutant concentrations; or*
- d. *Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.*

The above-listed thresholds are referenced in the *City of Moreno Valley Rules and Procedures for the Implementation of the California Environmental Quality Act* and address the typical, adverse effects related to air quality that could result from development projects.

The Project would result in a significant impact under Threshold "a" if the Project were determined to conflict with the SCAQMD 2016 AQMP. Pursuant to Chapter 12, Sections 12.2 and 12.3, of the SCAQMD CEQA Air Quality Handbook, a project would conflict with the AQMP if either of the following conditions were to occur (Urban Crossroads, 2020a, pp. 57-58; Urban Crossroads, 2020b, pp. 57-58):

- The Project would increase the frequency or severity of existing NAAQS and/or CAAQS violations, cause or contribute to new air quality violations, or delay the attainment of interim air quality standards; or
- The Project would exceed the 2016 AQMP's future year buildout assumptions.

For evaluation under Threshold "b," implementation of the Project would result in a cumulatively-considerable impact if the Project's construction and/or operational activities exceed one or more of the SCAQMD's



“Regional Thresholds” for criteria pollutant emissions (Urban Crossroads, 2020a, p. 39; Urban Crossroads, 2020b, p. 39). The “Regional Thresholds” established by SCAQMD for criteria pollutants are summarized in Table 4.2-4, *SCAQMD Maximum Daily Emissions Regional Thresholds*.

Table 4.2-6 SCAQMD Maximum Daily Emissions Regional Thresholds

Pollutant	Regional Construction Threshold	Regional Operational Thresholds
NO _x	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM ₁₀	150 lbs/day	150 lbs/day
PM _{2.5}	55 lbs/day	55 lbs/day
SO _x	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Pb	3 lbs/day	3 lbs/day

Source: (Urban Crossroads, 2020a, Table 3-1; Urban Crossroads, 2020b, Table 3-1)

For evaluation under Threshold “c,” the Project would result in a significant impact if any of the following were to occur:

- The Project’s localized criteria pollutant emissions would exceed one or more of the SCAQMD “Localized Thresholds” listed in Table 4.2-7, *SCAQMD Maximum Daily Emissions Construction Localized Thresholds* and Table 4.2-8, *SCAQMD Maximum Daily Emissions Operational Localized Thresholds*;
- The Project would cause or contribute to a CO “Hot Spot;” and/or
- The Project’s toxic air contaminant emissions, like DPM, would expose sensitive receptor populations to an incremental cancer risk of greater than 10 in one million; and/or result in a non-carcinogenic health risk rating (“Acute Hazard Index”) greater than 1.0.

Table 4.2-7 SCAQMD Maximum Daily Emissions Construction Localized Thresholds

Pollutant	Construction Localized Thresholds
NO _x	284 lbs/day
CO	1,841 lbs/day
PM ₁₀	25 lbs/day
PM _{2.5}	9 lbs/day

Source: (Urban Crossroads, 2020a, Table 3-8; Urban Crossroads, 2020b, Table 3-8)



Table 4.2-8 SCAQMD Maximum Daily Emissions Operational Localized Thresholds

Pollutant	Operational Localized Thresholds
NO _x	284 lbs/day
CO	1,841 lbs/day
PM ₁₀	7 lbs/day
PM _{2.5}	2 lbs/day

Source: (Urban Crossroads, 2020a, Table 3-10; Urban Crossroads, 2020b, Table 3-10)

For evaluation under Threshold “d,” a significant impact would occur if the Project’s construction and/or operational activities result in air emissions leading to an odor nuisance pursuant to SCAQMD Rule 402.

4.2.5 IMPACT ANALYSIS

The analysis provided on the following pages addresses the potential air quality-related impacts that could result from implementation of the proposed warehouse distribution/logistics facility and the conceptual fulfillment/e-commerce facility site plans described in EIR Section 3.0, *Project Description*. Except where specifically noted herein, implementation of the Project for either warehouse distribution/logistics or fulfillment/e-commerce uses would result in similar air quality impacts.

Threshold a: Would the Project conflict with or obstruct implementation of the applicable air quality plan?

The SCAQMD 2016 AQMP, which is the applicable air quality plan for the Project area, addresses long-term air quality conditions for the SCAB. The criteria for determining consistency with the 2016 AQMP are analyzed below.

- *Consistency Criterion No. 1: The proposed project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.*

Consistency Criterion No. 1 refers to violations of the NAAQS and CAAQS. Violations of the NAAQS and/or CAAQS would occur if the emissions resulting from the Project were to exceed the SCAQMD’s localized emissions thresholds. As a conservative measure, the Project’s regional emissions of VOC, NO_x, PM₁₀, and PM_{2.5} also are considered in the consistency determination because if the Project’s emissions of any of these pollutants would exceed the applicable SCAQMD regional thresholds, then these emissions could delay the SCAB’s attainment of federal and/or State ozone or particulate matter standards. As disclosed under the analysis for Threshold “c,” below, Project-related activities would not exceed SCAQMD localized emissions thresholds during construction or long-term operation as either a warehouse distribution/logistics or e-commerce/fulfillment use. As disclosed under the analysis for Threshold “b,” below, Project-related activities would not exceed the SCAQMD regional emissions thresholds during construction; however, Project operational activities under both the warehouse distribution/logistics and e-commerce/fulfillment uses would exceed the SCAQMD regional threshold for NO_x emissions. NO_x is a precursor for ozone; thus, Project operational activities



would contribute a substantial volume of pollutants to the SCAB that could delay the attainment of federal and State ozone standards. As such, prior to mitigation the Project would conflict with Consistency Criterion No. 1 under the warehouse distribution/logistics and e-commerce/fulfillment options.

- *Consistency Criterion No. 2: The proposed project will not exceed the assumptions in the AQMP based on the years of project buildout phase.*

The air quality conditions presented in the 2016 AQMP are based on the growth forecasts identified by SCAG in its 2016-2040 RTP/SCS. The 2016-2040 RTP/SCS anticipates that development in the various incorporated and unincorporated areas within the SCAB will occur in accordance with the adopted general plans for these areas. As such, development projects that propose to change the land use and/or increase the development intensity of an individual property may result in increased stationary area source emissions and/or mobile source emissions when compared to the 2016 AQMP assumptions. If a development project does not exceed the growth projections in the applicable local general plan, then the project is considered to be consistent with the growth assumptions in the AQMP.

Under existing conditions, the Project site is designated for “Residential: Max 2 du/ac (R2)” land use by the City of Moreno Valley’s General Plan Land Use Map. The Project includes a request to change the existing General Plan land use designation for the Project site from “R2” to “Business Park/Light Industrial (BP),” which, if approved, would result in a land use and development intensity that was not anticipated by the General Plan and, by extension, the growth models that were used in the 2016 AQMP. Accordingly, implementation of the Project under both the warehouse distribution/logistics and e-commerce/fulfillment options would exceed the assumptions in the AQMP based on the years of project buildout phase, and therefore would conflict with Consistency Criterion No. 2 (Urban Crossroads, 2020a, pp. 58-59; Urban Crossroads, 2020b, pp. 58-59).

In summary, because the proposed Project does not satisfy Consistency Criterion No. 1 or Consistency Criterion No. 2 under either the warehouse/distribution or e-commerce/logistics options, the Project is determined to be inconsistent with the 2016 AQMP. As such, the Project would conflict with and could result in the obstruction of the applicable AQMP and a significant impact would occur.

Threshold b: *Would the Project result in a cumulatively-considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard?*

As noted earlier in this Subsection, the SCAB has a “non-attainment” designation for ozone (1- and 8-hour) and particulate matter (PM_{2.5} and PM₁₀) under existing conditions. Refer to Subsection 4.2.1D for more information on existing air quality conditions in the SCAB.

A. Construction Emissions Impact Analysis

Peak Project construction emissions are summarized in Table 4.2-9, *Peak Construction Emissions Summary*. The site improvements, construction activities, and construction equipment fleets would be similar for both



the warehouse distribution/logistics and e-commerce/fulfillment options, thus the peak emissions listed in Table 4.2-9 reflect implementation of either Project scenario. Detailed air model outputs are presented in Appendix 3.1 of *Technical Appendices B1 and B2*.

Table 4.2-9 Peak Construction Emissions Summary

Year	Emissions (lbs/day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Summer						
2021	10.52	84.89	75.12	0.32	19.59	7.62
2022	70.09	91.33	96.68	0.36	23.16	7.64
Winter						
2021	10.48	84.60	67.32	0.30	19.59	7.62
2022	70.05	91.01	87.65	0.34	23.16	7.64
Maximum Daily Emissions	70.09	91.33	96.68	0.36	23.16	7.64
SCAQMD Regional Threshold	75	100	550	150	150	55
Threshold Exceeded?	NO	NO	NO	NO	NO	NO

Source: (Urban Crossroads, 2020a, Table 3-4; Urban Crossroads, 2020b, Table 3-4)

As shown in Table 4.2-9, peak Project construction emissions of VOCs, NO_x, CO, SO_x, and particulate matter (PM₁₀ and PM_{2.5}) would not exceed the applicable SCAQMD regional thresholds. Accordingly, the Project’s construction activities would not emit substantial concentrations of these pollutants and would not contribute to an existing or projected air quality violation on a cumulatively-considerable basis. Project construction impacts related to emissions of VOCs, NO_x, CO, SO_x, PM₁₀ and PM_{2.5} would be less than significant and mitigation is not required.

B. Operational Emissions Impact Analysis

Operation of the Project would result in emissions from area sources, energy sources, mobile sources, and on-site equipment. Area source emissions include evaporation of solvents in architectural coatings, organic compounds from consumer products, and fuel from landscape maintenance equipment. Energy source emissions include combustion emissions associated with natural gas and electricity. Mobile source emissions include emissions from vehicles and fugitive dust related to vehicular travel. On-site equipment emissions include emissions from cargo handling equipment.

The Project’s peak operational emissions for the warehouse distribution/logistics option are presented in Table 4.2-10 and Table 4.2-11 and the peak operational emissions for the e-commerce/fulfillment option are presented in Table 4.2-12 and Table 4.2-13. Detailed air model outputs are presented in Appendices of 3.3 and 3.4 of *Technical Appendix B1 and B2* and in *Technical Appendices B5 and B6*.



Table 4.2-10 Peak Operational Emissions Summary – Warehouse Distribution/Logistics (Without Cold Storage)

Operational Activities – Summer Scenario	Emissions (lbs/day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Area Source	30.57	3.27E-03	3.58E-01	3.00E-05	1.28E-03	1.28E-03
Energy Source	0.06	0.51	0.43	3.07E-03	0.04	0.04
Mobile Source (Passenger Cars)	3.81	3.08	55.45	0.17	18.19	4.88
Mobile Source (Trucks)	4.67	195.99	37.24	0.84	34.13	11.31
On-Site Equipment Source	0.61	6.34	3.79	0.02	0.22	0.20
Total Maximum Daily Emissions	39.71	205.92	97.26	1.03	52.58	16.42
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	NO	YES	NO	NO	NO	NO
Operational Activities – Winter Scenario	Emissions (lbs/day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Area Source	30.57	3.27E-03	3.58E-01	3.00E-05	1.28E-03	1.28E-03
Energy Source	0.06	0.51	0.43	3.07E-03	0.04	0.04
Mobile Source (Passenger Cars)	3.38	3.18	44.97	0.15	18.19	4.88
Mobile Source (Trucks)	4.55	204.60	35.35	0.84	34.11	11.30
On-Site Equipment Source	0.61	6.34	3.79	0.02	0.22	0.20
Total Maximum Daily Emissions	39.17	214.64	84.90	1.01	52.56	16.42
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	NO	YES	NO	NO	NO	NO

Source: (Urban Crossroads, 2020a, Table 3-7)



Table 4.2-11 Peak Operational Emissions Summary – Warehouse Distribution/Logistics (With Cold Storage)

Operational Activities – Summer Scenario	Emissions (lbs/day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Area Source	30.57	3.27E-03	3.58E-01	3.00E-05	1.28E-03	1.28E-03
Energy Source	0.13	1.17	0.99	7.05E-03	0.09	0.09
Mobile Source (Passenger Cars)	3.54	3.30	52.77	0.17	18.27	4.90
Mobile Source (Trucks)	4.95	184.08	36.97	0.86	34.67	11.49
On-Site Equipment Source	0.61	6.34	3.79	0.02	0.22	0.20
Total Maximum Daily Emissions	39.80	194.89	94.88	1.04	53.25	16.67
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	NO	YES	NO	NO	NO	NO
Operational Activities – Winter Scenario	Emissions (lbs/day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Area Source	30.57	3.27E-03	3.58E-01	3.00E-05	1.28E-03	1.28E-03
Energy Source	0.13	1.17	0.99	7.05E-03	0.09	0.09
Mobile Source (Passenger Cars)	3.37	3.49	45.00	0.15	18.27	4.90
Mobile Source (Trucks)	4.85	191.57	33.54	0.86	34.64	11.48
On-Site Equipment Source	0.61	6.34	3.79	0.02	0.22	0.20
Total Maximum Daily Emissions	39.52	202.58	83.68	1.03	53.22	16.67
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	NO	YES	NO	NO	NO	NO

Source: (Urban Crossroads, 2020d, Table 7)



Table 4.2-12 Peak Operational Emissions Summary – E-Commerce/Fulfillment (Without Cold Storage)

Operational Activities – Summer Scenario	Emissions (lbs/day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Area Source	30.58	4.08E-03	0.45	3.00E-05	1.60E-03	1.60E-03
Energy Source	0.06	0.51	0.43	3.07E-03	0.04	0.04
Mobile Source (Passenger Cars)	15.26	12.33	222.01	0.67	72.84	19.52
Mobile Source (Trucks)	4.56	189.95	36.94	0.81	32.75	10.76
On-Site Equipment Source	0.61	6.34	3.79	0.02	0.22	0.20
Total Maximum Daily Emissions	51.06	209.13	263.62	1.49	105.84	30.52
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	NO	YES	NO	NO	NO	NO
Operational Activities – Winter Scenario	Emissions (lbs/day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Area Source	30.58	4.08E-03	0.45	3.00E-05	1.60E-03	1.60E-03
Energy Source	0.06	0.51	0.43	3.07E-03	0.04	0.04
Mobile Source (Passenger Cars)	13.55	12.75	180.05	0.60	72.84	19.52
Mobile Source (Trucks)	4.45	198.32	35.06	0.81	32.73	10.75
On-Site Equipment Source	0.61	6.34	3.79	0.02	0.22	0.20
Total Maximum Daily Emissions	49.23	217.92	219.77	1.43	105.83	30.52
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	NO	YES	NO	NO	NO	NO

Source: (Urban Crossroads, 2020b, Table 3-7)



Table 4.2-13 Peak Operational Emissions Summary – E-Commerce/Fulfillment (With Cold Storage)

Operational Activities – Summer Scenario	Emissions (lbs/day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Area Source	30.58	4.08E-03	0.45	3.00E-05	1.60E-03	1.60E-03
Energy Source	0.13	1.17	0.99	7.05E-03	0.09	0.09
Mobile Source (Passenger Cars)	13.75	12.79	204.72	0.64	70.86	18.99
Mobile Source (Trucks)	4.84	179.22	36.89	0.82	33.29	10.94
On-Site Equipment Source	0.61	6.34	3.79	0.02	0.22	0.20
Total Maximum Daily Emissions	49.91	199.53	246.83	1.49	104.46	30.22
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	NO	YES	NO	NO	NO	NO
Operational Activities – Winter Scenario	Emissions (lbs/day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Area Source	30.58	4.08E-03	0.45	3.00E-05	1.60E-03	1.60E-03
Energy Source	0.13	1.17	0.99	7.05E-03	0.09	0.09
Mobile Source (Passenger Cars)	13.05	13.54	174.57	0.59	70.86	18.99
Mobile Source (Trucks)	4.74	186.53	33.48	0.83	33.27	10.93
On-Site Equipment Source	0.61	6.34	3.79	0.02	0.22	0.20
Total Maximum Daily Emissions	49.11	207.58	213.27	1.44	104.44	30.21
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	NO	YES	NO	NO	NO	NO

Source: (Urban Crossroads, 2020e, Table 7)



As shown in Table 4.2-10 through Table 4.2-13, Project operation would result in peak emissions of VOCs, CO, SO_x, and particulate matter (PM₁₀ and PM_{2.5}) that do not exceed the applicable SCAQMD regional thresholds. Accordingly, both the Project's warehouse distribution/logistics and e-commerce/fulfillment options would not emit substantial concentrations of these pollutants and would not contribute to an existing or projected air quality violation on a cumulatively-considerable basis. Impacts associated with Project operational emissions of VOCs, CO, SO_x, PM₁₀ and PM_{2.5} would be less than significant and mitigation is not required.

However, peak Project operational NO_x emissions, which primarily are emitted from vehicle tailpipes, would exceed the applicable SCAQMD regional threshold under both the warehouse distribution/logistics and e-commerce/fulfillment options. NO_x is a precursor for ozone, a pollutant for which the SCAB does not attain federal (NAAQS) or State (CAAQS) standards. Accordingly, the Project's daily NO_x emissions during long-term operation would violate the SCAQMD regional threshold for this pollutant and would result in a cumulatively considerable net increase of a criteria pollutant for which the Project region is in nonattainment. This impact is significant and mitigation is required.

Threshold c: Would the Project expose sensitive receptors to substantial pollutant concentrations?

A. Localized Criteria Pollutant Analysis

1. Construction Analysis

As shown in Table 4.2-14, *Peak Construction Localized Emissions Summary*, the Project's localized NO_x, CO, and particulate matter (PM₁₀ and PM_{2.5}) emissions would not exceed applicable SCAQMD thresholds during Project construction. The site improvements, construction activities, and construction equipment fleets would be similar for both the warehouse distribution/logistics and e-commerce/fulfillment options, thus the peak emissions listed in Table 4.2-14 reflect implementation of either Project scenario. Accordingly, Project construction would not expose any sensitive receptors in the vicinity of the Project site to substantial criteria pollutant concentrations. Impacts would be less than significant and no mitigation would be required.

2. Operational Analysis

As shown in Table 4.2-15 and Table 4.2-16, neither operation of the Project as a warehouse distribution/logistics use nor as an e-commerce/fulfillment use would not exceed the applicable SCAQMD thresholds for localized NO_x, CO, and particulate matter (PM₁₀ and PM_{2.5}) emissions. Accordingly, implementation of the Project would not expose any sensitive receptors in the vicinity of the Project site to substantial pollutant concentrations. Impacts would be less than significant and no mitigation is required.



Table 4.2-14 Peak Construction Localized Emissions Summary

On-Site Emissions	Emissions (lbs/day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
Demolition				
Maximum Daily Emissions	31.44	21.57	1.60	1.45
SCAQMD Localized Threshold	284	1,841	25	9
Threshold Exceeded?	NO	NO	NO	NO
Site Preparation				
Maximum Daily Emissions	60.79	21.85	13.83	6.75
SCAQMD Localized Threshold	284	1,841	25	9
Threshold Exceeded?	NO	NO	NO	NO
Pile Driving				
Maximum Daily Emissions	9.05	5.22	4.51	0.79
SCAQMD Localized Threshold	284	1,841	25	9
Threshold Exceeded?	NO	NO	NO	NO
Grading				
Maximum Daily Emissions	56.54	31.23	8.77	3.84
SCAQMD Localized Threshold	284	1,841	25	9
Threshold Exceeded?	NO	NO	NO	NO

Source: (Urban Crossroads, 2020a, Table 3-9; Urban Crossroads, 2020b, Table 3-9)

Table 4.2-15 Peak Operational Localized Emissions Summary – Warehouse Distribution/Logistics

Operational Activity	Emissions (lbs/day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
Maximum Daily Emissions	17.24	9.22	2.87	1.05
SCAQMD Localized Threshold	284	1,841	7	2
Threshold Exceeded?	NO	NO	NO	NO

Source: (Urban Crossroads, 2020a, Table 3-11)

Table 4.2-16 Peak Operational Localized Emissions Summary – E-Commerce/Fulfillment

Operational Activity	Emissions (lbs/day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
Maximum Daily Emissions	17.41	17.62	5.54	1.76
SCAQMD Localized Threshold	284	1,841	7	2
Threshold Exceeded?	NO	NO	NO	NO

Source: (Urban Crossroads, 2020b, Table 3-11)



B. CO Hot Spot Impact Analysis

A CO “hot spot” is an isolated geographic area where localized concentrations of CO exceeds the CAAQS one-hour (20 parts per million) or eight-hour (9 parts per million) standards. A Project-specific CO “hot spot” analysis was not performed because CO attainment in the SCAB was thoroughly analyzed as part of SCAQMD’s 2003 AQMP and the 1992 Federal Attainment for Carbon Monoxide Plan (1992 CO Plan). As identified in the SCAQMD’s 2003 AQMP and the 1992 CO Plan, peak CO concentrations in the SCAB were the byproduct of unusual meteorological and topographical conditions and were not the result of traffic congestion. For context, the CO “hot spot” analysis performed for the 2003 AQMP recorded a CO concentration of 9.3 parts per million (8-hour) at the Long Beach Boulevard/Imperial Highway intersection in Los Angeles County; however, only a small portion of the recorded CO concentrations (0.7 parts per million) were attributable to traffic congestion at the intersection. The vast majority of the recorded CO concentrations at the Long Beach Boulevard/Imperial Highway intersection (8.6 parts per million) were attributable to ambient air concentrations. In comparison, the busiest intersections in the Project site vicinity would not experience peak congestion levels or ambient CO concentrations comparable to the conditions observed at the Long Beach Boulevard/Imperial Highway intersection. Data from several air districts/studies indicate that under existing and future vehicle emission rates, a given project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour – or 24,000 vehicles per hour where vertical and/or horizontal air does not mix – in order to generate a significant CO impact. Under either the warehouse distribution/logistics or e-commerce/fulfillment scenarios, the Project would not produce the volume of traffic required to generate a CO hotspot based on the referenced studies. Based on the relatively low traffic congestion levels, low existing ambient CO concentrations, and the lack of any unusual meteorological and/or topographical conditions in the Project site vicinity, the Project’s operation as either a warehouse distribution/logistics use or as an e-commerce/fulfillment use is not expected to cause or contribute to a CO “hot spot.” (Urban Crossroads, 2020a, pp. 55-56; Urban Crossroads, 2020b, pp. 55-56) Impacts would be less than significant and mitigation is not required.

C. Toxic Air Contaminant Emissions Impact Analysis

Based on the typical operations at cross-dock warehouse distribution/logistics facilities and at e-commerce/fulfillment uses, neither of which include smoke stacks or other stationary point-sources of air pollutant emissions, the Project is not expected to result in stationary emissions of toxic air contaminants. However, operation of the Project as either a warehouse distribution/logistics use or an e-commerce/fulfillment use would generate/attract diesel-fueled trucks. Diesel-fueled trucks produce DPM, which is a toxic air contaminant and is known to be associated with acute and chronic health hazards – including cancer. Project-related DPM health risks are summarized below. Detailed air dispersion model outputs and risk calculations are presented in Appendices 2.1 and 2.2 of *Technical Appendices B3 and B4* and in *Technical Appendices B5 and B6*.

At the MEIR, which is a residential use located approximately 118 feet south of the Project site, the maximum incremental cancer risk attributable to the DPM emissions from trucks traveling to/from the Project site is calculated to be 6.75 in one million as a warehouse distribution/logistics use, which would rise to 7.25 in one million if the building were to include cold storage (Urban Crossroads, 2020c, p. 1; Urban Crossroads, 2020d, p. 12). The maximum incremental cancer risk would be 2.48 in one million as an e-commerce/fulfillment use,



which would rise to 2.29 in one million were the building to include cold storage (Urban Crossroads, 2021a, p. 1; Urban Crossroads, 2020e, p. 12). The warehouse use represents a higher risk level because the southern parking area would be mainly used by trucks whereas under the e-commerce scenario, the southern parking lot would mainly be used by passenger vehicles. All values would not exceed the SCAQMD cancer risk threshold of 10 in one million. The non-cancer health risk index at the MEIR would not exceed the SCAQMD non-cancer health risk index threshold of 1.0 under all warehouse distribution/logistics and fulfillment/e-commerce scenarios (both with and without cold storage) (Urban Crossroads, 2020c, p. 1; Urban Crossroads, 2020d, p. 12; Urban Crossroads, 2021a, p. 1; Urban Crossroads, 2020e, p. 12). All other residential locations in the vicinity of the Project site located farther from the Project site than the MEIR would be exposed to lower concentrations of Project-related DPM emissions due to their increased distance from Project-related diesel-fueled truck operations and, therefore, are at less risk – and would be impacted to a lesser degree – than the MEIR identified herein. The Project’s operation as either a warehouse distribution/logistics use or as an e-commerce/fulfillment use would not directly cause or contribute in a cumulatively-considerable manner to the exposure of residential receptors near the Project site to substantial DPM emissions. Impacts to residential receptors would be less than significant.

At the MEIW, the Aldi Distribution Facility (located approximately 465 feet north of the Project site), the maximum incremental cancer risk attributable to the DPM emissions from trucks traveling to/from the Project site is calculated to be 0.54 in one million as warehouse distribution/logistics use, which would rise to 0.57 in one million in the event the building includes cold storage (Urban Crossroads, 2020c, p. 1; Urban Crossroads, 2020d, p. 12). The maximum incremental cancer risk would be 0.41 in one million as an e-commerce/fulfillment use, which would rise to 0.44 in one million in the event the building includes cold storage (Urban Crossroads, 2021a, p. 1; Urban Crossroads, 2020e, p. 12). All values would not exceed the SCAQMD cancer risk threshold of 10 in one million. The non-cancer health risk index at the MEIW would not exceed the SCAQMD non-cancer health risk index threshold of 1.0 under all warehouse distribution/logistics and fulfillment/e-commerce scenarios (both with and without cold storage) (Urban Crossroads, 2020c, p. 1; Urban Crossroads, 2020d, p. 12; Urban Crossroads, 2021a, p. 1; Urban Crossroads, 2020e, p. 12). Places of business located further than 465 feet from the Project’s activities would be impacted to a lesser degree than the MEIW due to their increased distance from Project diesel-fueled truck operations. The Project’s operation as either a warehouse distribution/logistics use or as an e-commerce/fulfillment use would not directly cause or contribute in a cumulatively-considerable manner to the exposure of worker receptors near the Project site to substantial DPM emissions. Impacts to worker receptors would be less than significant.

No schools are located within 0.25-mile of the Project site or the Project’s primary truck routes. As noted earlier in this subsection, it is conservatively assumed that 80% of all DPM emissions settle from the air within 1,000 feet (0.19-mile) from the point of emission. Because there are no schools within at least 1,320 of the Project site or the Project’s primary truck route, operation of the Project would not directly cause or contribute in a cumulatively-considerable manner to the exposure of school child receptors near the Project site to substantial DPM emissions (Urban Crossroads, 2020c, p. 2; Urban Crossroads, 2021a, p. 2). Significant impacts to school children receptors would not occur.



Threshold d: Would the Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

During construction activities on the Project site, odors could be produced by construction equipment exhaust or from the application of asphalt and/or architectural coatings. However, standard construction practices would minimize the odor emissions and their associated impacts. Furthermore, any odors emitted during construction would be temporary, short-term, and intermittent in nature, and would cease upon the completion of the respective phase of construction. In addition, construction activities on the Project site would be required to comply with SCAQMD Rule 402, which prohibits the discharge of odorous emissions that would create a public nuisance (Urban Crossroads, 2020a, pp. 60-61; Urban Crossroads, 2020b, pp. 60-61). Accordingly, the Project's construction – as either a warehouse distribution/logistics or e-commerce/fulfillment use – would not create objectionable odors affecting a substantial number of people and impacts would be less than significant.

During long-term operation, the Project would operate as either a warehouse distribution/logistics or e-commerce/fulfillment facility, neither of which are typically associated with the emission of objectionable odors. Temporary outdoor refuse storage could be a potential source of odor; however, Project-generated refuse is required to be stored in covered containers and removed at regular intervals in compliance with the City's solid waste regulations, thereby precluding any significant odor impact. Furthermore, the occupant(s) of the proposed warehouse and high-cube warehouse buildings would be required to comply with SCAQMD Rule 402, which prohibits the discharge of odorous emissions that would create a public nuisance, during long-term operation (Urban Crossroads, 2020a, p. 61; Urban Crossroads, 2020b, p. 61). As such, long-term operation of the Project as either a warehouse distribution/logistics or e-commerce/fulfillment use would not create objectionable odors affecting a substantial number of people and impacts would be less than significant.

4.2.6 CUMULATIVE IMPACT ANALYSIS

The *AQMP* evaluates regional conditions within the Basin and sets regional emission significance thresholds for both construction and operation of development projects that apply to project-specific impacts and cumulatively-considerable impacts. Thus, if a project exceeds the SCAQMD regional emissions thresholds, project-specific impacts would also result in a cumulatively-considerable increase in emissions for those pollutants for which the basin is in non-attainment. As described under the analysis for Threshold "a," Project implementation would conflict with the SCAQMD's 2016 *AQMP* because the Project would contribute to existing local air quality violations and exceed growth projections used in the *AQMP* (which would result in air pollutant emissions that were not anticipated in the *AQMP*) under both the warehouse distribution/logistics and e-commerce/fulfillment scenarios. Based on the SCAQMD's regional emissions thresholds, the Project's conflict with the *AQMP* is determined to be a significant cumulatively-considerable impact.

Based on SCAQMD guidance, any exceedance of a regional or localized threshold for criteria pollutants also is considered to be a cumulatively-considerable effect, while air pollutant emissions that fall below applicable regional and/or localized thresholds are not considered cumulatively-considerable. As discussed in the response to Threshold "b," Project construction air pollutant emissions would not exceed the applicable SCAQMD thresholds; however, the SCAQMD regional thresholds for NO_x emissions would be exceeded during Project operation (under both the warehouse distribution/logistics and e-commerce/fulfillment



scenarios). Therefore, the Project's operational NO_x emissions would be cumulatively-considerable and mitigation would be required.

As discussed under the analysis for "Threshold c," all Project-related construction- and operational localized air pollutant emissions – including DPM – would not exceed the applicable SCAQMD thresholds for either the warehouse distribution/logistics or e-commerce/fulfillment options and, therefore, are not considered cumulatively-considerable.

As indicated in the analysis of Threshold "d," above, there are no Project components that would expose a substantial number of sensitive receptors to objectionable odors. There are no known sources of offensive odors in the Project area. Because the Project's construction and operation would not create substantial and objectionable odors and because there are no sources of objectionable odors in the areas immediately surrounding the Project site, there is no potential for odors from the Project site to commingle with odors from nearby development projects and expose nearby sensitive receptors to substantial, offensive odors. Accordingly, implementation of the Project for either a warehouse distribution/logistics use or an e-commerce/fulfillment use would result in a less-than-significant cumulative impact related to odors.

4.2.7 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold a: Significant Direct and Cumulatively-Considerable Impact. Under warehouse distribution/logistics and e-commerce/fulfillment options, the Project would exceed the growth projections contained in SCAQMD's 2016 AQMP and, also, would emit air pollutants that would contribute to a delay in the attainment of federal and State ozone standards in the SCAB. As such, the Project would conflict with and could obstruct implementation of the AQMP.

Threshold b: Significant Direct and Cumulatively-Considerable Impact. Project-related activities would exceed the applicable SCAQMD regional thresholds for NO_x emissions during long-term operation of the warehouse distribution/logistics and e-commerce/fulfillment options. As such, Project-related emissions would violate SCAQMD air quality standards and contribute to the non-attainment of ozone standards in the SCAB.

Threshold c: Less-than-Significant Impact. Implementation of the Project for either warehouse distribution/logistics or e-commerce/fulfillment uses would not: 1) exceed applicable SCAQMD localized criteria pollution emissions thresholds during construction and operation; 2) would not expose sensitive receptors to toxic air contaminants (i.e., DPM) that exceed the applicable SCAQMD carcinogenic and non-carcinogenic risk thresholds; and 3) would not cause or contribute to the formation of a CO "hot spot."

Threshold d: Less-than-Significant Impact. The Project would not produce air emissions that would lead to unusual or substantial construction-related or operational-related odors under the warehouse distribution/logistics or e-commerce/fulfillment options. The Project is required to comply with SCAQMD Rule 402, which prohibits the discharge of odorous emissions that would create a public nuisance.



4.2.8 MITIGATION

All of the mitigation measures (MMs) listed below shall apply to both the warehouse distribution/logistics and e-commerce/fulfillment options for the Project.

Although the Project's construction-related particulate matter (PM₁₀ and PM_{2.5}) emissions would be less than significant, and compliance with regulatory requirements are not required to be repeated as mitigation, the following mitigation measures would ensure compliance with standard SCAQMD rules and minimize the Project's construction-related particulate matter emissions.

- MM 4.2-1 The Project shall comply with the provisions of South Coast Air Quality Management District Rule 403, "Fugitive Dust." Rule 403 requires implementation of best available dust control measures during construction activities that generate fugitive dust, such as earth moving, grading, and equipment travel on unpaved roads. Rule 403 also requires activities defined as "large operations" to notify the SCAQMD by submitting specific forms. The following notes shall be listed on the Project's grading plans, to be confirmed by the City of Moreno Valley prior to grading permit issuance. Project construction contractors shall be required by their contracts to ensure compliance with the notes, submit any required "large operations" forms to the SCAQMD, and permit periodic inspection of the construction site by City of Moreno Valley staff or its designee to confirm compliance.
- a) During grading and ground-disturbing construction activities, the construction contractor shall ensure that all unpaved roads, active soil stockpiles, and areas undergoing active ground disturbance within the Project site are watered at least three (3) times daily during dry weather. Watering, with complete coverage of disturbed areas by water truck, sprinkler system, or other comparable means, shall occur in the mid-morning, afternoon, and after work is done for the day. The contractor or builder shall designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust off-site.
 - b) Temporary signs shall be installed on the construction site along all unpaved roads indicating a maximum speed limit of 15 miles per hour (MPH). The signs shall be installed before construction activities commence and remain in place for the duration of construction activities that include vehicle activities on unpaved roads.
 - c) Gravel pads must be installed at all access points to prevent tracking of mud onto public roads.
 - d) Install and maintain trackout control devices in effective condition at all access points where paved and unpaved access or travel routes intersect (e.g., install wheel shakers, wheel washers, limit site access).
 - e) When materials are transported off-site, all material shall be covered or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained.



- f) All street frontages adjacent to the construction site shall be swept at least once a day using SCAQMD Rule 1186 certified street sweepers utilizing water trucks (reclaimed water, if available) if visible soil materials are carried to adjacent streets.
- g) Post a publicly visible sign with the telephone number and person to contact regarding dust complaints. This person shall respond and initiate corrective action to legitimate complaints within 24 hours.
- h) Any vegetative cover to be utilized onsite shall be planted as soon as possible to reduce the disturbed area subject to wind erosion. Irrigation systems required for these plants shall be installed as soon as possible to maintain good ground cover and to minimize wind erosion of the soil.
- i) Any on-site stock piles of debris, dirt, or other dusty material shall be covered or watered as necessary to minimize fugitive dust pursuant to SCAQMD Rule 403.
- j) A high wind response plan shall be formulated and implemented for enhanced dust control if winds are forecast to exceed 25 mph in any upcoming 24-hour period.

MM 4.2-2 The Project shall comply with the provisions of South Coast Air Quality Management District Rule 1186 “PM₁₀ Emissions from Paved and Unpaved Roads and Livestock Operations” and Rule 1186.1, “Less-Polluting Street Sweepers” by complying with the following requirements. To ensure and enforce compliance with these requirements, prior to grading and building permit issuance, the City of Moreno Valley shall verify that the following notes are included on the grading and building plans and within the construction management plan. Project construction contractors shall be required to ensure compliance with the notes and permit periodic inspection of the construction site by City of Moreno Valley staff or its designee to confirm compliance.

- a) If visible dirt or accumulated dust is carried onto paved roads during construction, the contractor shall remove such dirt and dust at the end of each work day by street cleaning.
- b) Street sweepers shall be certified by the South Coast Air Quality Management District as meeting the Rule 1186 sweeper certification procedures and requirements for PM₁₀-efficient sweepers. All street sweepers having a gross vehicle weight of 14,000 pounds or more shall be powered with alternative (non-diesel) fuel or otherwise comply with South Coast Air Quality Management District Rule 1186.1.

Although compliance with regulatory requirements are not required to be repeated as mitigation, the following mitigation measure would ensure compliance with SCAQMD Rule 1113 and reduce the Project’s construction-related VOC emissions and the contributions of this pollutant to the SCAB’s non-attainment status for ozone.

MM 4.2-3 Prior to building permit issuance, the City of Moreno Valley shall verify that a note is provided on all building plans specifying that compliance with SCAQMD Rule 1113 is mandatory during application of all architectural coatings. Project contractors shall be required to comply



with the note and maintain written records of such compliance that can be inspected by the City of Moreno Valley upon request. This note also shall indicate that only “super-compliant” low VOC paint products (no more than 10 gram/liter of VOC) shall be used. All other architectural coatings shall comply with the VOC limits prescribed by SCAQMD Rule 1113.

Although the Project’s construction-related NO_x emissions impact would be less than significant, the following mitigation measure is included as a best management practice:

MM 4.2-4 Project construction contractors shall assure that all construction equipment complies with all applicable California Air Resources Board (CARB) air quality regulations. Also, Project construction contractors shall tune and maintain all construction equipment in accordance with the equipment manufacturer’s recommended maintenance schedule and specifications. Maintenance records for all pieces of equipment shall be kept on-site for the duration of construction activities and shall be made available for periodic inspection by City of Moreno Valley staff or their designee.

The following mitigation measures would reduce the Project’s operational-related NO_x emissions and the contributions of this pollutant to the SCAB’s non-attainment status for ozone.

MM 4.2-5 Legible, durable, weather-proof signs shall be placed at truck access gates, loading docks, and truck parking areas that identify applicable California Air Resources Board (CARB) anti-idling regulations. At a minimum, each sign shall include: 1) instructions for truck drivers to shut off engines when not in use for more than three (3) minutes; and 2) instructions for drivers of diesel trucks to restrict idling to no more than three (3) minutes once the vehicle is stopped, the transmission is set to “neutral” or “park,” and the parking brake is engaged. Prior to the issuance of an occupancy permit, the City of Moreno Valley shall conduct a site inspection to ensure that the signs are in place.

MM 4.2-6 Prior to building permit issuance, the City of Moreno Valley shall ensure that the parking lot striping and security gating plan allows for adequate truck stacking at gates to prevent queuing of trucks outside the property.

MM 4.2-7 Prior to the issuance of a building permit, the Project Applicant or successor in interest shall provide documentation to the City of Moreno Valley demonstrating that the Project is designed to meet or exceed CalGreen Tier 2 standards in effect at the time of building permit application and includes the energy efficiency design features listed below at a minimum.

- a) Preferential parking locations for carpool, vanpool, EVs and CNG vehicles;
- b) Secure, weather protected bicycle parking;
- c) Installation of the minimum number of passenger vehicle EV charging stations required by Title 24 and the installation of conduit at a minimum of five (5) percent of the Project’s total number of automobile parking spaces to accommodate the future, optional installation of EV charging infrastructure;



- d) The building's roof shall be designed and constructed to accommodate the potential, future construction of maximally-sized photovoltaic (PV) solar arrays taking into consideration limitations imposed by other rooftop equipment, roof warranties, building and fire code requirements, and other physical or legal limitations. The building shall include an electrical system and other infrastructure sufficiently-sized to accommodate the potential installation of maximally-sized PV arrays in the future. The electrical system and infrastructure must be clearly labeled with noticeable and permanent signage which informs future occupants/owners of the existence of this infrastructure;
- e) The building's electrical room shall be sufficiently sized to hold additional panels that may be needed in the future to supply power for the future installation of EV truck charging stations on the site. Conduit should be installed from the electrical room to tractor trailer parking spaces in a logical location(s) on the site determined by the Project Applicant during construction document plan check, for the purpose of accommodating the future installation of EV truck charging stations at such time this technology becomes commercially available and the building is being served by trucks with electric-powered engines.
- f) The building's electrical room shall be sufficiently sized to hold additional panels that may be needed in the future to supply power to trailers with transport refrigeration units (TRUs) during the loading/unloading of refrigerated goods. Conduit should be installed from the electrical room to the loading docks determined by the Project Applicant during construction document plan check as the logical location(s) to receive trailers with TRUs. Loading docks that may receive trailers with TRUs shall only be located on the north side of the building.
- g) Outdoor electrical outlets are provided in reasonable locations to maximize the opportunities to use electric-powered landscape maintenance equipment.
- h) Use of light-colored paving materials in the passenger vehicle parking areas, drive aisles, and/or truck court;
- i) Use of light-colored roofing materials;
- j) Use of solar or light-emitting diode (LED) fixtures for outdoor lighting;
- k) All heating, cooling, and lighting devices and appliances shall be Energy Star certified; and
- l) All fixtures installed in restrooms and employee break areas shall be U.S. EPA Certified WaterSense or equivalent.

MM 4.2-8 Prior to building final, the Project Applicant or successor in interest shall install signs and/or painting/striping at on-site driveways and drive aisles to clearly identify the on-site circulation pattern to minimize unnecessary on-site vehicular travel. In addition, the Project owner or



operator shall install signs at each truck exit driveway that provides directional information to the City's truck route. Text on the sign shall read "To Truck Route" with a directional arrow.

- MM 4.2-9 Prior to building final, the Project Applicant or successor in interest shall provide the City of Moreno Valley with an information packet that will be provided to future building occupants that: 1) provides information regarding the grants available from the Carl Moyer Memorial Air Quality Standards Attainment Program for energy efficiency improvement features – including truck modernization, retrofits, and/or aerodynamic kits and low rolling resistance tires – and the resulting benefits to air quality; 2) recommends the use of electric or alternatively-fueled sweepers with HEPA filters; 3) recommends the use of water-based or low VOC cleaning and 4) for occupants with more than 250 employees, information related to SCAQMD Rule 2202, which requires the establishment of a transportation demand management program to reduce employee commute vehicle emissions.
- MM 4.2-10 Prior to issuance of occupancy permit, future Project site owner or occupant shall provide written statement to the City of Moreno Valley that that the use of diesel-powered outdoor cargo handling equipment (e.g., yard trucks, hostlers, yard goats, pallet jacks, forklifts) on-site is prohibited unless such equipment meets CARB Tier 4 standards.
- MM 4.2-11 Prior to issuance of occupancy permit, future Project site owner or occupant shall install a sign on the Project site with telephone, email, and regular mail contact information for a designated representative of the occupant who would receive complaints about excessive dust, fumes, or odors. The sign shall also identify contact data for the City for perceived Code violations. The occupant's representative shall keep records of any complaints received and actions taken to communicate with the complainant and resolve the complaint. The occupant's representative shall endeavor to resolve complaints within 24 hours.

4.2.9 SIGNIFICANCE OF IMPACTS AFTER MITIGATION

Threshold a: Significant and Unavoidable Direct and Cumulatively-Considerable Impact. Although MM 4.2-5 through MM 4.2-11 would reduce the Project's operational-related emissions of NO_x, as discussed below the mitigation measures would not reduce NO_x emissions to below the applicable SCAQMD regional threshold. Additionally, the Project would exceed the growth assumptions for the Project site relied upon in the 2016 AQMP, and no feasible mitigation is available to address this impact. Therefore, Project impacts due to a conflict with the 2016 AQMP would be significant and unavoidable on both a direct and cumulatively-considerable basis. This impact would occur under the Project's warehouse distribution/logistics and e-commerce/fulfillment options.

Threshold a: Significant and Unavoidable Direct and Cumulatively-Considerable Impact. MM 4.2-5 through MM 4.2-11 would require design features to be incorporated into the Project that would reduce the Project's overall demand for energy resources and would reduce the Project's operational NO_x emissions (NO_x is released during the combustion of certain types of energy resources). However, mobile source emissions account for approximately 96 percent, by weight, of the Project's total operational NO_x emissions (under both the warehouse distribution/logistics and e-commerce/fulfillment uses). Mobile source emissions are regulated by standards imposed by federal and State agencies, not local governments. No other mitigation measures related to vehicle tailpipe emissions are available that are within the City of Moreno Valley's jurisdictional



authority that, also, are feasible for the City of Moreno Valley to enforce and have a proportional nexus to the Project's level of impact. As such, it is concluded that operation of the Project for either warehouse distribution/logistics or e-commerce/fulfillment uses would generate NO_x emissions that would exceed the applicable SCAQMD regional air quality threshold on a daily basis. The Project's operational-related NO_x emissions would cumulatively contribute to an existing air quality violation in the SCAB (i.e., ozone concentrations), as well as cumulatively contribute to the net increase of a criteria pollutant for which the SCAB is non-attainment (i.e., federal and State ozone concentrations). Accordingly, the Project's long-term operational-related emissions of NO_x are concluded to result in a significant and unavoidable impact on both a direct and cumulatively-considerable basis. This impact would occur under the Project's warehouse distribution/logistics and e-commerce/fulfillment options.

A recent Supreme Court of California decision, *Sierra Club v. County of Fresno (Friant Ranch)*, states that EIRs should relate a project's expected significant adverse air quality impacts to likely human health consequences or explain why it is not feasible at the time of preparing the EIR to provide such an analysis. Given that the proposed Project's implementation would result in a significant direct and cumulatively-considerable impact associated with NO_x emissions under long-term operating conditions, the potential health consequences associated with these air pollutants, as well as other air pollutants associated with the Project, were considered. Although as explained below it may be misleading and unreliable to attempt to specifically quantify the health risks associated with NO_x and other air pollutant emissions that would result from the Project, the Project's air quality impact analysis (*Technical Appendices B1 and B2*) and mobile source health risk assessment (*Technical Appendices B3 and B4*) provide extensive information concerning the quantifiable and non-quantifiable health risks related to the Project's construction and long-term operation. Refer to these EIR appendices for additional information.

Population-based studies suggest that long-term exposure to NO_x can cause an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants). Short-term exposure can result in resistance to air flow and airway contraction in healthy subjects. Exposure also can decrease lung functions in individuals with asthma or chronic obstructive pulmonary diseases (e.g., chronic bronchitis, emphysema), as these individuals are more susceptible to the effects of NO_x than healthy individuals. These and other health effects associated with air pollutants that would be generated by the Project were previously described in this Subsection (refer to Subsection 4.2.1C, *Air Quality Pollutants and Associated Human Health Effects*). As noted in the Brief of Amicus Curiae by the SCAQMD in the Friant Ranch case (hereafter, "Brief"), the SCAQMD – which has among the most sophisticated air quality modeling and health impact evaluation capability of any of the air districts in the State – indicated that quantifying specific health risks that may result from NO_x and other air pollutants from proposals like the Project would be unreliable and misleading due to the relatively small-scale of the Project (from a regional perspective), unknown variables related to pollutant generation/release and receptor exposure, and regional model limitations (Urban Crossroads, 2020a, pp. 59-60; Urban Crossroads, 2020b, pp. 59-60). Accordingly, current scientific, technological, and modeling limitations prevent accurate and quantifiable relation of the Project's NO_x emissions (and other air pollutant emissions) to likely health consequences for local and regional receptors.



4.3 BIOLOGICAL RESOURCES

This Subsection evaluates the potential for Project-related activities to impact sensitive biological resources. The analysis in this Subsection is based, primarily, on information contained in a technical report prepared by Glen Lukos Associates, Inc. (hereinafter, “GLA”) titled, “Biological Technical Report for Moreno Valley Trade Center Property,” and dated May 2020. The biological technical report is included as *Technical Appendix C1* to this EIR (GLA, 2020a). The biological technical report incorporates the review of relevant literature, field surveys, and a geographic information system (GIS)-based analysis of vegetation communities (GLA, 2020a, p. 1). Refer to *Technical Appendix C1* for detailed descriptions of the survey dates, scopes of study, and research and survey methodologies used in the biological resources evaluation.

The analysis in this Subsection also is based on two additional technical reports prepared by GLA. The report is titled, “Jurisdictional Delineation of the Moreno Valley Trade Center Project” dated May 26, 2020 (GLA, 2020b) is included as *Technical Appendix C2* to this EIR. The jurisdictional delineation report addresses potential jurisdictional waters and wetlands located on and abutting the Project site. The report titled “Determination of Biologically Equivalent or Superior Preservation (DBESP) Analysis for Impacts to MSHCP Riparian/Riverine Areas Moreno Valley Trade Center Project” dated July 8, 2020 is included as *Technical Appendix C3* to this EIR (GLA, 2020c). The DBESP report addresses potential MSHCP riparian/riverine areas located on and abutting the Project site and describes compensatory mitigation for these impacts.

4.3.1 EXISTING CONDITIONS

The Project site primarily consists of annually-maintained former agricultural fields that support predominantly ruderal vegetation, with the southeast corner of the site containing an active plant nursery and associated structures (i.e., an office building, shade and storage structures) and three (3) residences with ancillary structures and improvements (GLA, 2020a, p. 22; GLA, 2020b, pp. 12-14). The Quincy Channel is located along the western Project site boundary and enters the Project site from the northwest through a culvert and flows in a southerly direction before continuing off-site to the south past Encelia Avenue (*ibid.*).

The off-site Project study area is comprised of existing paved street segments located adjacent to the Project site, including Eucalyptus Avenue, Redlands Boulevard, and Encelia Avenue (*ibid.*).

A. *Vegetation Communities*

As shown on Figure 4.3-1, *Existing Vegetation Map*, and described below, the Project site and the off-site Project study area – collectively referred to as the “Project survey area” – are comprised of four (4) vegetation communities: disturbed/developed, disturbed/ruderal, ornamental, and ruderal habitats. None of the observed vegetation communities within the Project survey area are classified as a sensitive natural vegetation community or special-status vegetation community (GLA, 2020a, pp. 22, 24).

- **Disturbed/Developed.** The disturbed/developed habitat covers approximately 14.8 acres of on-site area, which consists of vehicular access roads located along the western and southern portions of the site and the existing plant nursery in the southeast corner of the site, and 12.2 acres of the off-site study area, which consists of existing paved roadways (GLA, 2020a, p. 23).



- **Disturbed/Ruderal.** The disturbed/ruderal habitat covers approximately 53.4 acres of the Project site, which consist of areas routinely disced for weed abatement (GLA, 2020a, p. 23). Dominant plant species observed include London rocket (*Sisymbrium irio*), cheeseweed (*Malva parviflora*), common fiddleneck (*Amsinckia intermedia*), red brome (*Bromus madritensis* ssp. *rubens*), and Russian thistle (*Salsola australis*), with some areas having dense patches of non-native grasses. Other species detected include wild radish (*Raphanus sativus*), black mustard (*Brassica nigra*), common barley (*Hordum vulgare*), common Mediterranean grass (*Schismus barbatus*), field mustard (*Brassica rapa*), flax-leaved horseweed (*Erigeron bonariensis*), lambs quarters (*Chenopodium album*), prickly lettuce (*Lactuca serriola*), red brome (*Bromus madritensis* ssp. *rubens*), silver wattle (*Acacia dealbata*), white horehound (*Marrubium vulgare*), annual bursage (*Ambrosia acanthicarpa*), salt heliotrope (*Heliotropium curassavicum*), and western sunflower (*Helianthus annuus*) (ibid.). Additionally, the disturbed/ruderal habitat supports sparse occurrences of ornamentally planted southern California black walnut (*Juglans californica*) and Peruvian pepper tree (*Schinus molle*) (ibid.).
- **Ornamental.** The Project site contains approximately 0.8-acre of ornamental habitat, which primarily consists of non-native or planted tree species occurring in the central and southeastern portions of the Project site (GLA, 2020a, p. 23). Dominant plant species observed include Fremont cottonwood (*Populus fremontii*) and red gum (*Eucalyptus camaldulensis*) (ibid.).
- **Ruderal.** The Project site contains approximately 3.5 acres of ruderal habitat, which primarily consists of non-native ruderal vegetation that has been historically maintained (GLA, 2020a, pp. 23-24). Ruderal areas are primarily associated with the Quincy Channel along the western Project site boundary and along the fence lines in the eastern portion of the site (ibid.). Dominant plant species within the Quincy Channel include common fiddleneck, London rocket, and Russian thistle. Additional plant species observed include giant reed (*Arundo donax*), castor bean (*Ricinis communis*), Mexican fan palm (*Washingtonia robusta*), red-stemmed filaree (*Erodium cicutarium*), tamarisk (*Tamarix* sp.), tree of heaven (*Ailanthus altissima*), and tree tobacco (*Nicotiana glauca*) (ibid.). Dominant plants along the fence lines include common Mediterranean grass, common barley, cheeseweed, fiddleneck, and London rocket (ibid.).

B. Special-Status Plants

Forty-six (46) plant species were identified within the Project survey area during field surveys, 30 of which were non-native species (GLA, 2020a, pp. 24-28). The complete list of observed plant species is included in Appendix A to *Technical Appendix C1*. No special-status plant species were observed within the Project survey area and no special-status plant species have potential to occur within the Project survey area due to a lack of suitable habitat and ongoing weed control practices (ibid.).

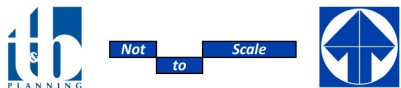
C. Special-Status Wildlife

Forty-three (43) animal species were observed within the Project survey area during field surveys (GLA, 2020a, Appendix B). The complete list of observed animal species is included in Appendix B to *Technical Appendix C1*. During field surveys, GLA observed one (1) special-status species, the northern harrier, foraging at the Project site (GLA, 2020a, p. 34). The northern harrier is a California Species of Special Concern and is



Source(s): Glenn Lukos Associates (05-26-2020)

Figure 4.3-1



Not to Scale



a covered species under the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) (ibid.). The Project site does not support nesting habitat for this species; however, approximately 56.9 acres of the Project site supports potential foraging habitat (i.e., disturbed/ruderal and ruderal) (GLA, 2020a, pp. 34-35). In addition, the following six (6) special-species have the potential to occur on the Project site based on the physical characteristics of the property and the current and/or historical distribution of the species.

- **Loggerhead Shrike.** The loggerhead shrike is a California Species of Special Concern when nesting and is a covered species under the MSHCP. The Project site supports approximately 56.9 acres of potential foraging habitat (i.e., disturbed/ruderal and ruderal) for the species (GLA, 2020a, p. 35).
- **White-tailed Kite.** The white-tailed kite is a California Fully Protected Species and is a covered species under the MSHCP. The Project site does not support nesting habitat for this species; however, approximately 56.9 acres of the Project site supports potential foraging habitat (i.e., disturbed/ruderal and ruderal) for the species (GLA, 2020a, p. 35).
- **Los Angeles Pocket Mouse.** The Los Angeles pocket mouse is a California Species of Special Concern and is a covered species under the MSHCP. Although the Project site is disturbed, small mammal burrows were detected during field surveys; therefore, the Project site supports approximately 3.5 acres of potential suitable habitat (ruderal) for the species (GLA, 2020a, pp. 35-36).
- **Northwestern San Diego Pocket Mouse.** The northwestern San Diego pocket mouse is a California Species of Special Concern and is a covered species under the MSHCP. Although the Project site is disturbed, small mammal burrows that could be used by the species were detected during field surveys (GLA, 2020a, p. 36). The Project site supports approximately 3.5 acres of potential suitable habitat (i.e., ruderal) for the northwestern San Diego pocket mouse (ibid.).
- **San Diego Black-Tailed Jackrabbit.** The San Diego black-tailed jackrabbit is a California Species of Special Concern and is a covered species under the MSHCP. Although the Project site is disturbed, small mammal burrows that could be used by the species were detected during field surveys (GLA, 2020a, p. 36). The Project site supports approximately 3.5 acres of potential suitable habitat (i.e., ruderal) for the San Diego black-tailed jackrabbit (ibid.).
- **Burrowing Owl.** The burrowing owl is a California Species of Special Concern and is a covered species not adequately conserved under the MSCHP. No burrowing owls or signs of their use (i.e., scat, tracks, pellets, or feathers) were observed during protocol surveys conducted by GLA biologists (GLA, 2020a, pp. 8, 37). Notwithstanding, GLA determined that suitable foraging and nesting habitat exists on the Project site for the burrowing owl (ibid.).

D. Nesting Birds

The Project site contains trees, shrubs, and ground cover that can provide foraging and nesting habitat for native and migratory bird species (GLA, 2020a, p. 38).



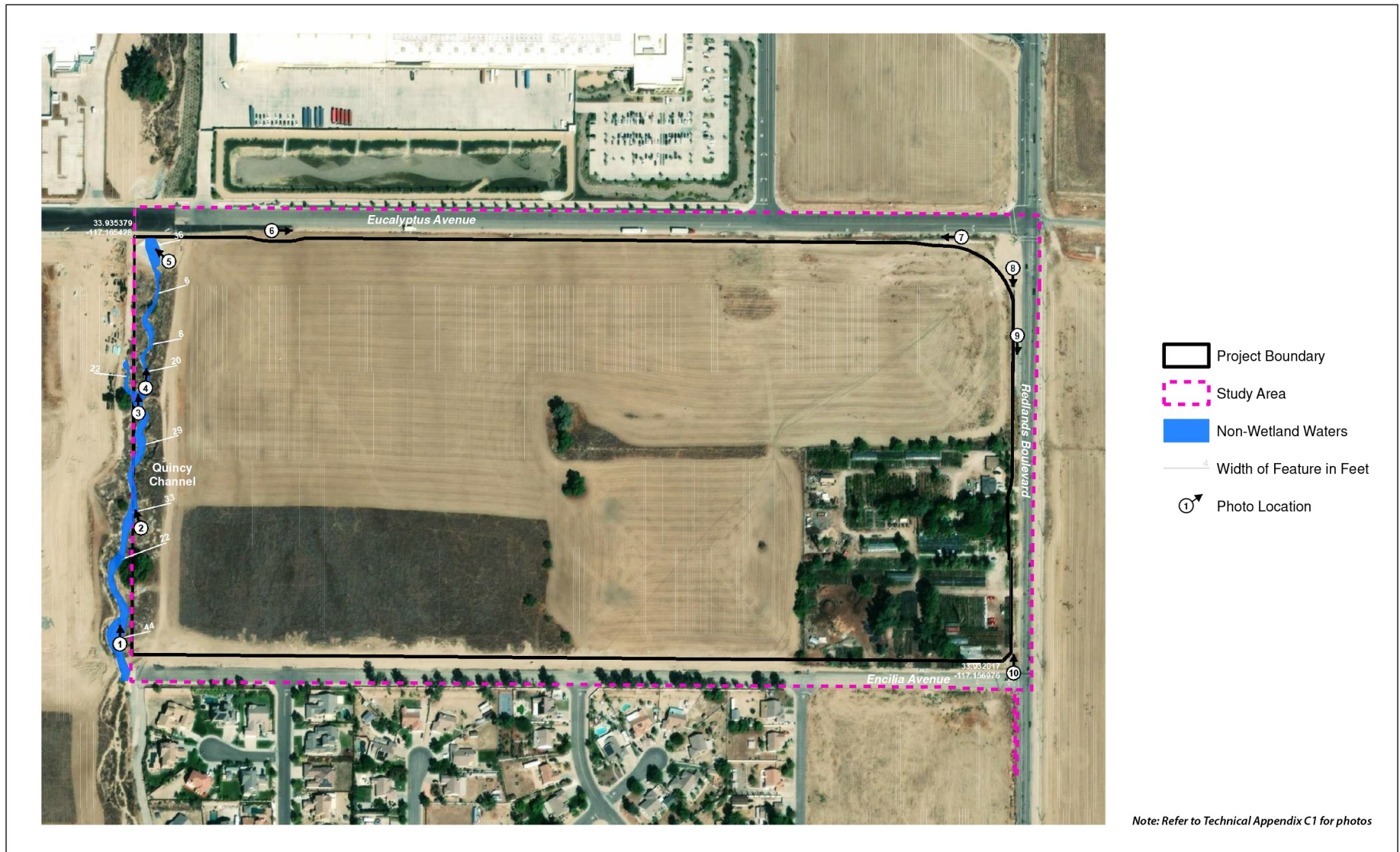
E. Jurisdictional Waters and Wetlands

GLA observed three (3) drainage features on the Project site under the jurisdiction of regulatory agencies. The jurisdictional features observed by GLA are described below.

- **Quincy Channel.** The Quincy Channel, which is a soft-bottomed earthen channel, is located along the western Project site boundary. The Quincy Channel enters the northwestern portion of the Project site through a reinforced triple box culvert under Eucalyptus Avenue and meanders across the Project site in a southerly direction for approximately 1,487 linear feet before continuing off-site past Encelia Avenue (GLA, 2020b, pp. 10-11, 14). The Quincy Channel is generally unvegetated with scattered upland species along its banks and terraces (ibid.). Approximately 0.6-acre of Army Corps of Engineers (Corps) and Regional Water Quality Control Board (RWQCB) jurisdiction area, are associated with the Quincy Channel, none of which consist of State or federal wetlands (ibid.). Approximately 2.2 acres of California Department of Fish and Wildlife (CDFW) jurisdiction area is associated with the Quincy Channel, 0.02-acre of which consist of riparian habitat (ibid.). Refer to Figure 4.3-2 through Figure 4.3-4
- **Ditch 1.** Ditch 1 is a manmade roadside ditch located along the south side of Eucalyptus Avenue and flows for approximately 2,295 linear feet (GLA, 2020a, pp. 12, 14-15). Ditch 1 averages four (4) feet in width and conveys surface flow and run-off from the adjacent uplands (ibid.). Vegetation associated with Ditch 1 is limited to non-native upland species (ibid.). Approximately 0.2-acre of RWQCB and CDFW jurisdiction area is associated with Ditch 1, none of which consists of State or federal wetland or riparian habitat, respectively; refer to Figure 4.3-2 through Figure 4.3-4 (ibid.).
- **Ditch 2.** Ditch 2 is a manmade roadside ditch located along the west side of Redlands Boulevard and flows in a north-south direction for approximately 1,275 linear feet (GLA, 2020a, pp. 13, 15). Ditch 2 averages six (6) feet in width and conveys surface flow and road run-off from the adjacent uplands (ibid.). Approximately 0.2-acre of RWQCB jurisdiction area is associated with Ditch 2, none of which consists of State or federal wetland (ibid.). Approximately 0.4-acre of CDFW jurisdiction area is associated with Ditch 2, none of which consists of riparian habitat. Refer to Figure 4.3-2 through Figure 4.3-4 (ibid.).

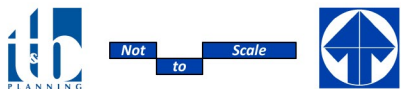
4.3.2 REGULATORY SETTING

The Project survey area is subject to State of California (hereafter, “State”) and federal regulations that were developed to protect natural resources, including: State and federally listed plants and animals; aquatic resources including rivers and creeks, ephemeral streambeds, wetlands, and areas of riparian habitat; other special-status species which are not listed as threatened or endangered by the State or federal governments; and other special-status vegetation communities. Provided below is an overview of the federal, State, and regional laws, regulations, and requirements that are applicable to the Project site based on its geographic location and the biological resources observed by GLA.

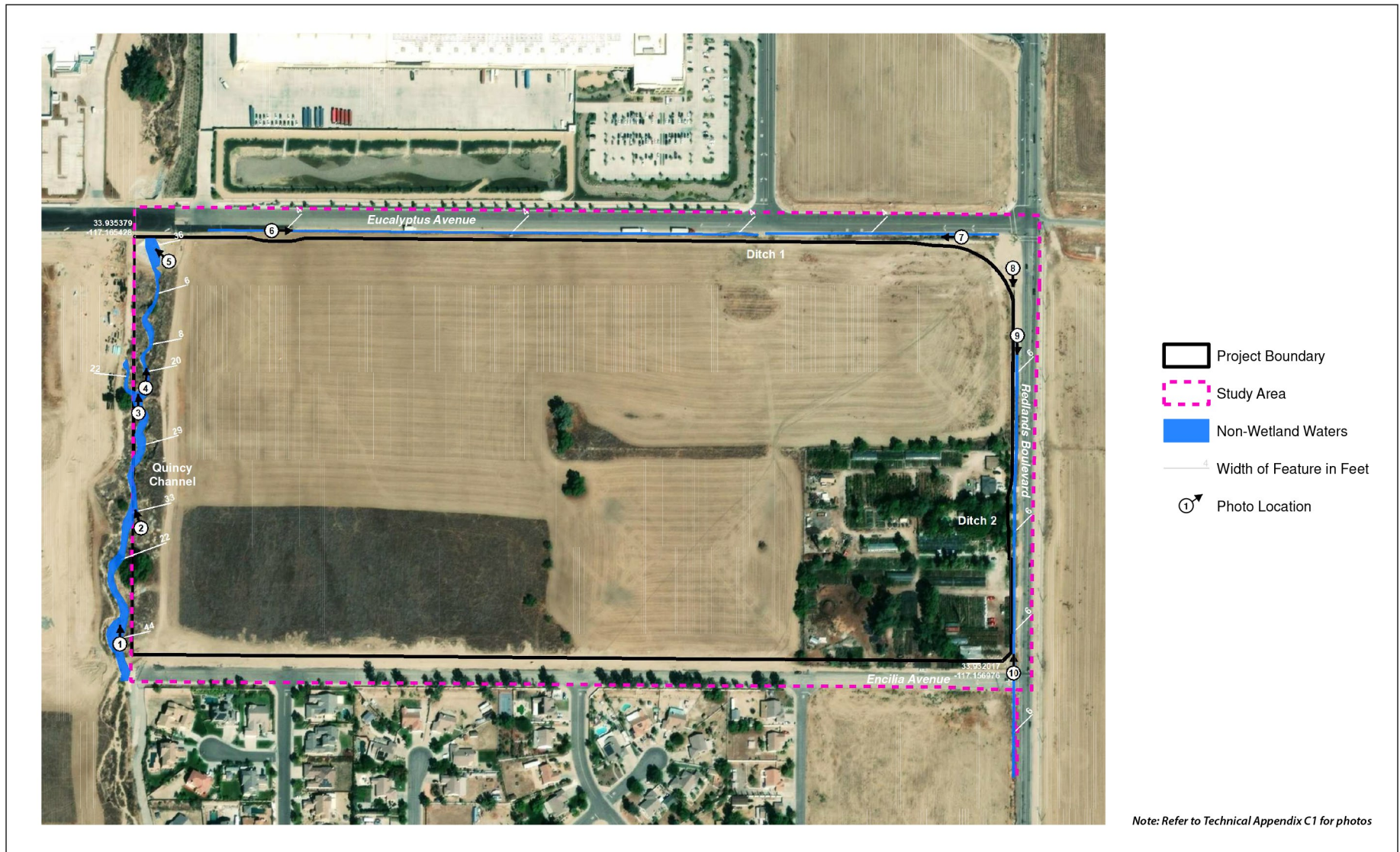


Source(s): Glenn Lukos Associates (05-26-2020)

Figure 4.3-2

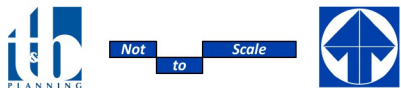


Corps Jurisdiction Area

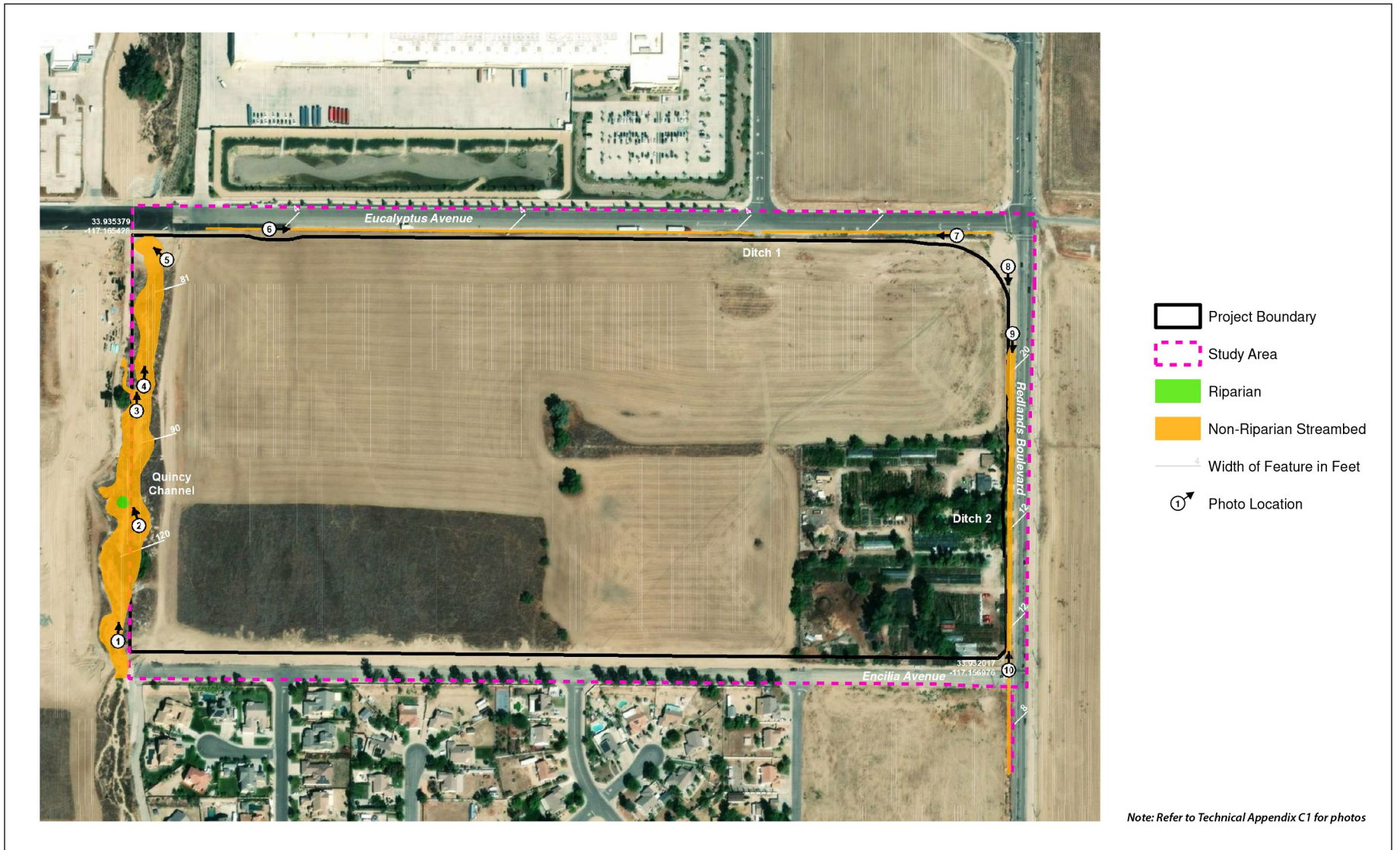


Source(s): Glenn Lukos Associates (05-26-2020)

Figure 4.3-3

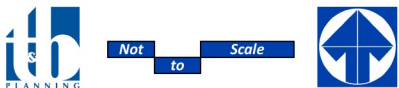


RWQCB Jurisdiction Area



Source(s): Glenn Lukos Associates (05-26-2020)

Figure 4.3-4



CDFW Jurisdiction Area



A. Federal Plans, Policies, and Regulations

1. Endangered Species Act (ESA)

The purpose of the federal Endangered Species Act (ESA) is to protect and recover imperiled species and the ecosystems upon which they depend (USFWS, 2013). It is administered by the U.S. Fish and Wildlife Service (USFWS) and the Commerce Department’s National Marine Fisheries Service (NMFS). The USFWS has primary responsibility for terrestrial and freshwater organisms, while the responsibilities of NMFS are mainly marine wildlife such as whales and anadromous fish such as salmon. Under the ESA, species may be listed as either endangered or threatened. “Endangered” means a species is in danger of extinction throughout all or a significant portion of its range. “Threatened” means a species is likely to become endangered within the foreseeable future. All species of plants and animals, except pest insects, are eligible for listing as endangered or threatened.

The ESA makes it unlawful for a person to take a listed animal without a permit. Take is defined as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct.” Through regulations, the term “harm” is defined as “an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering.” Listed plants are not protected from take, although it is illegal to collect or maliciously harm them on Federal land. Protection from commercial trade and the effects of federal actions do apply for plants.

2. Clean Water Act Section 401

Clean Water Act (CWA) Section 401 water quality certification provides states and authorized tribes with an effective tool to help protect water quality, by providing them an opportunity to address the aquatic resource impacts of federally issued permits and licenses (EPA, 2019h). Under Section 401, a federal agency cannot issue a permit or license for an activity that may result in a discharge to waters of the U.S. until the state or tribe where the discharge would originate has granted or waived Section 401 certification. The central feature of CWA Section 401 is the State or tribe’s ability to grant, grant with conditions, deny, or waive certification.

Many states and tribes rely on Section 401 certification to ensure that discharges of dredge or fill material into a water of the U.S. do not cause unacceptable environmental impacts and, more generally, as their primary regulatory tool for protecting wetlands and other aquatic resources. However, Section 401 is limited in scope and application to situations involving federally-permitted or licensed activities that may result in a discharge to a water of the U.S. If a federal permit or license is not required, or would authorize impacts only to waters that are not waters of the U.S., the activity is not subject to the CWA Section 401.

3. Clean Water Act Section 404

Section 404 of the CWA establishes a program to regulate the discharge of dredged or fill material into waters of the United States, including wetlands (EPA, n.d.). Wetlands subject to Clean Water Act Section 404 are defined as “areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar



areas.” Activities in waters of the United States regulated under this program include fill for development, water resource projects (such as dams and levees), infrastructure development (such as highways and airports) and mining projects. Section 404 requires a permit before dredged or fill material may be discharged into waters of the United States, unless the activity is exempt from Section 404 regulation (e.g. certain farming and forestry activities).

The basic premise of the program is that no discharge of dredged or fill material may be permitted if: (1) a practicable alternative exists that is less damaging to the aquatic environment; or (2) the nation’s waters would be significantly degraded. Applications for permits must, to the extent practicable: (1) demonstrate steps have been taken to avoid wetland impacts; (2) demonstrate that potential impacts on wetlands have been minimized; and (3) provide compensation for any remaining unavoidable impacts. Proposed activities are regulated through a permit review process.

4. *Migratory Bird Treaty Act (16 USC Section 703-712)*

The Migratory Bird Treaty Act (MBTA) makes it illegal for anyone to take, possess, import, export, transport, sell, purchase, barter, or offer for sale, purchase, or barter, any migratory bird, or the parts, nests, or eggs of such a bird except under the terms of a valid permit issued pursuant to federal regulations (USFWS, 2020). The migratory bird species protected by the MBTA are listed in 50 CFR 10.13. The USFWS has statutory authority and responsibility for enforcing the MBTA (16 U.S.C. 703-712). The MBTA implements Conventions between the United States and four countries (Canada, Mexico, Japan, and Russia) for the protection of migratory birds.

B. State Plans, Policies, and Regulations

1. *California Endangered Species Act (CESA)*

The California Endangered Species Act (CESA) states that all native species of fishes, amphibians, reptiles, birds, mammals, invertebrates, and plants, and their habitats, threatened with extinction and those experiencing a significant decline which, if not halted, would lead to a threatened or endangered designation, will be protected or preserved (CDFW, 2020a). The California Department of Fish and Wildlife (CDFW) works with interested persons, agencies, and organizations to protect and preserve such sensitive resources and their habitats. CESA prohibits the take of any species of wildlife designated by the California Fish and Game Commission as endangered, threatened, or candidate species. CDFW may authorize the take of any such species if certain conditions are met.

Section 2081 subdivision (b) of the California Fish and Game Code (CFGC) allows CDFW to authorize take of species listed as endangered, threatened, candidate, or a rare plant, if that take is incidental to otherwise lawful activities and if certain conditions are met. These authorizations are commonly referred to as incidental take permits (ITPs).

2. *Natural Community Conservation Planning Act (NCCP)*

CDFW's Natural Community Conservation Planning (NCCP) program takes a broad-based ecosystem approach to planning for the protection and perpetuation of biological diversity (CDFW, 2020b). The NCCP



program began in 1991 as a cooperative effort to protect habitats and species. It is broader in its orientation and objectives than the California and Federal Endangered Species Acts, as these laws are designed to identify and protect individual species that have already declined in number significantly.

An NCCP identifies and provides for the regional protection of plants, animals, and their habitats, while allowing compatible and appropriate economic activity. Working with landowners, environmental organizations, and other interested parties, a local agency oversees the numerous activities that compose the development of an NCCP. CDFW and the U.S. Fish and Wildlife Service provide the necessary support, direction, and guidance to NCCP participants.

3. *California Fish and Game Code, Section 1600, et seq.*

California Fish and Game Code (CFGF) Section 1602 requires an entity to notify CDFW prior to commencing any activity that may do one or more of the following: (1) substantially divert or obstruct the natural flow of any river, stream, or lake; (2) substantially change or use any material from the bed, channel or bank of any river, stream, or lake; or (3) deposit debris, waste or other materials that could pass into any river, stream, or lake (CDFW, 2020d). The CFGF indicates that "any river, stream or lake" includes those that are episodic (they are dry for periods of time) as well as those that are perennial (they flow year-round). This includes ephemeral streams, desert washes, and watercourses with a subsurface flow. It may also apply to work undertaken within the flood plain of a body of water.

CDFW requires a Lake and Streambed Alteration (LSA) Agreement when it determines that the activity, as described in a complete LSA Notification, may substantially adversely affect existing fish or wildlife resources. An LSA Agreement includes measures necessary to protect existing fish and wildlife resources. CDFW may suggest ways to modify a project that would eliminate or reduce harmful impacts to fish and wildlife resources. Before issuing an LSA Agreement, CDFW must comply with CEQA.

4. *Native Plant Protection Act (NPPA) of 1977*

The Native Plant Protection Act (NPPA) was enacted in 1977 and allows the Fish and Game Commission to designate plants as rare or endangered. There are 64 species, subspecies, and varieties of plants that are protected as rare under the NPPA (CDFW, 2020c). The NPPA prohibits take of endangered or rare native plants, but includes some exceptions for agricultural and nursery operations; emergencies; and after properly notifying CDFW for vegetation removal from canals, roads, and other sites, changes in land use, and in certain other situations.

5. *Unlawful Take or Destruction of Nests or Eggs (CFGF Sections 3503.5-3513)*

Section 3503.5 of the CFGF specifically protects birds of prey, stating: "It is unlawful to take, possess, or destroy any...[birds-of-prey] or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto."

Section 3513 of the CFGF duplicates the federal protection of migratory birds, stating: "It is unlawful to take or possess any migratory nongame bird as designated in the Migratory Bird Treaty Act or any part of such



migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Bird Treaty Act.”

C. Local Plans, Policies, and Regulations

1. Western Riverside County MSHCP

The Western Riverside County MSHCP is a comprehensive, multi-jurisdictional HCP focusing on conservation of species and their habitats in Western Riverside County. The Western Riverside County MSHCP was adopted on June 17, 2003, and an Implementing Agreement (IA) was executed between the USFWS, CDFW, and participating entities (including the City of Moreno Valley). Rather than focusing on one species at a time, implementation of the Western Riverside County MSHCP Section 10 Permit preserves native vegetation and meet the habitat needs of multiple species.

The Project site is located within the Reche Canyon/Badlands Area Plan of the Western Riverside County MSHCP but is not located within a Cell Group, Criteria Cell, or Sub-Unit and is not targeted for conservation (GLA, 2020a, p. 3). The Project site is located within the MSHCP Burrowing Owl Survey Area but is not located within the Narrow Endemic Plan Species Survey Area (NEPSSA), the Criteria Area Plant Species Survey Area (CAPSSA), or the MSHCP Mammal and Amphibian Survey Areas (ibid.).

2. Stephen's Kangaroo Rat Habitat Conservation Plan

The Stephens' Kangaroo Rat Habitat Conservation Plan (HCP) is a comprehensive, multi-jurisdictional HCP focusing on the conservation of the endangered Stephens' Kangaroo Rat and its habitat (RCTLMA, 2014). The Stephens' Kangaroo Rat HCP was adopted in August 1990 and an Implementing Agreement (IA) was executed between the USFWS, CDFW, and participating entities (including the City of Moreno Valley). The Stephens' Kangaroo Rat HCP provides for the permanent establishment, mitigation, and monitoring of a reserve network for the Stephens' Kangaroo Rat. The Project site is not located within the Stephens' Kangaroo Rat survey area but is located within the Stephens' Kangaroo Rat mitigation fee area.

3. City of Moreno Valley Municipal Code

The City's Municipal Code Chapter 3.48, *Western Riverside Multi-Species Habitat Conservation Plan Fee Program Ordinance*, is a local development mitigation fee program to assist in preserving vegetation communities and natural areas within the City of Moreno Valley and western Riverside County, which are known to support threatened, endangered, or key sensitive populations of plant and wildlife species (Moreno Valley, 2018). Each development project to be constructed within the City of Moreno Valley would be required to pay a local development mitigation fee (based on project acreage).

The City's Municipal Code Section 8.60.070 also requires development projects within the boundaries of Stephens' Kangaroo Rat mitigation fee area, such as the Project, to pay an impact and mitigation fee (based on project acreage) (Moreno Valley, 2018).



4.3.3 BASIS FOR DETERMINING SIGNIFICANCE

The State Legislature has established it to be the policy of the State of California to “[p]revent the elimination of fish or wildlife species due to man’s activities, ensure that fish and wildlife populations do not drop below self-perpetuating levels, and preserve for future generations representations of all plant and animal communities...” (Public Resources Code § 21001(c)). CEQA Guidelines Section 15065(a) establishes that a project may have a significant effect where:

“The project has the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or wildlife community, reduce the number or restrict the range of an endangered, rare, or threatened species ...”

Appendix G of the CEQA Guidelines is more specific in addressing biological resources and encompasses a broader range of resources to be considered, including: candidate, sensitive, or special status species; riparian habitat or other sensitive natural communities; federally protected wetlands; fish and wildlife movement corridors; local policies or ordinances protecting biological resources; and, adopted Habitat Conservation Plans (HCPs). Based on the guidance within CEQA and the CEQA Guidelines, the City of Moreno Valley has adopted a set of significance thresholds for determining the specific conditions by which a development project could result in a significant impact to biological resources (before considering offsetting mitigation measures). The significance thresholds, referenced in the *City of Moreno Valley Rules and Procedures for the Implementation of the California Environmental Quality Act*, are utilized in the analysis presented in this Subsection. Accordingly, for the purpose of analysis in this EIR, the proposed Project would result in a significant impact to biological resources if the Project or any Project-related component would:

- a. *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U. S. Fish and Wildlife Service;*
- b. *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Wildlife Service;*
- c. *Have a substantial adverse effect on State or federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;*
- d. *Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites;*
- e. *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or*
- f. *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, other approved local, regional, or State habitat conservation plan.*



4.3.4 IMPACT ANALYSIS

The proposed warehouse distribution/logistics facility and the conceptual fulfillment/e-commerce facility site plans described in EIR Section 3.0, *Project Description*, would result in identical ground-disturbing impacts. Thus, the analysis provided on the following pages addresses the potential impacts to biological resources that would result from implementation of the Project for either warehouse distribution/logistics or fulfillment/e-commerce uses.

Threshold a: *Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U. S. Fish and Wildlife Service?*

A. Direct Impacts to Special-Status Plants

No special-status plants were observed within the Project survey area by GLA biologists during field surveys and, due to the disturbed nature of the survey area and lack of natural plant communities thereon, the area does not have potential to support special-status plant species known to occur in the general Project area (GLA, 2020a, pp. 42-43). Furthermore, the Project survey area is not located within a NEPSSA or CAPSSA and, thus, is not considered to be in an area with a high likelihood of supporting substantial populations of sensitive native plant species (ibid.). Implementation of the Project would result in no direct impacts to special-status plants.

B. Direct Impacts to Special-Status Animals

As discussed previously in this Subsection (see 4.3.1.C), one (1) special-status animal species (northern harrier) was detected on the Project site during field surveys and six (6) special-status animal species (loggerhead shrike, white-tailed kite, Los Angeles pocket mouse, northwestern San Diego pocket mouse, San Diego black-tailed jackrabbit, and burrowing owl) have the potential to occur on the Project site. Potential direct impacts to these special-status species are discussed below.

1. Special-Status Birds

No burrowing owls or signs of burrowing owl use were observed on the Project site during focused surveys; however, the Project site contains suitable foraging and nesting habitat for the burrowing owl (GLA, 2020a, pp. 44-45). Because the burrowing owl is a nomadic species its movements are unpredictable and it is possible that the burrowing owl could migrate onto the property prior to construction. The burrowing owl is classified by the MSHCP as a covered species not adequately conserved by the MSHCP; thus, if burrowing owls are present on the Project site at the time construction activities commence, potential direct impacts to the species would be significant and mitigation would be required (ibid.).

The Project site contains suitable foraging habitat for the northern harrier, loggerhead shrike, and white-tailed kite (in total approximately 56.9 acres of foraging habitat for the species) (GLA, 2020a, p. 43). Although these species are classified as California Species of Special Concern, they are considered to be adequately conserved by the MSHCP and the permanent loss of suitable foraging habitat on the Project site or the northern harrier, loggerhead shrike, and white-tailed kite would be less than significant (ibid.).



2. *Special-Status Mammals*

No special-status mammals were observed/detected within the Project survey area; however, approximately 3.5 acres of the Project site provides suitable habitat for the Los Angeles pocket mouse, northwestern San Diego pocket mouse, and San Diego black-tailed jackrabbit (GLA, 2020a, p. 43). These species are classified as California Species of Concern and are considered to be adequately conserved by the MSHCP, therefore, the permanent loss of suitable habitat on the Project site for the Los Angeles pocket mouse, northwestern San Diego pocket mouse, and San Diego black-tailed jackrabbit would be less than significant (ibid.).

C. *Indirect Impacts to Special-Status Biological Resources*

Development projects located adjacent to natural open spaces have the potential to result in indirect effects to biological resources such as light pollution, noise pollution, non-native/ornamental plant invasion, etc. The Project site and the areas immediately surrounding the property are heavily disturbed (or already developed), dominated by non-native species, and do not have a high potential to support sensitive or special-status biological resources (GLA, 2020a, p. 45). Due to the lack of natural, undisturbed habitat surrounding the Project survey area, implementation of the Project would not result in substantial indirect impacts to special-status biological resources (ibid.). Accordingly, the Project would result in less-than-significant indirect impacts to special-status biological resources.

Threshold b: *Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Wildlife Service?*

The Quincy Channel, which forms the western boundary of the Project site, contains approximately 0.02-acre of CDFW riparian habitat (GLA, 2020a, p. 45). The Project would avoid all impacts to the Quincy Channel. There are no other habitat types within the Project study area that are considered to be riparian habitats or sensitive natural communities (ibid.). Accordingly, implementation of the Project has no potential to result in a substantial adverse effect to any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS. No impact would occur and mitigation is not required.

The Project would permanently impact 0.57-acre (3,570 linear feet) of sensitive habitat subject to CDFW jurisdiction, which are located within Ditch 1 and Ditch 2 on the Project site (ibid.). Prior to the issuance of grading permits, the Project Applicant would be required to obtain a Lake and Streambed Alteration agreement for impacts to areas under CDFW jurisdiction. Accordingly, the Project would have a direct significant impact on sensitive natural community for which mitigation is required.

Threshold c: *Would the Project have a substantial adverse effect on State or federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

Implementation of the Project would permanently impact 0.39-acre of RWQCB jurisdiction associated with Ditch 1 and Ditch 2 on the Project site, none of which consist of State or federally protected wetlands as defined



by Section 404 of the Clean Water Act (GLA, 2020a, p. 45). Therefore, the Project site does not contain any protected wetland or aquatic resources, including, but not limited to, natural drainages or water courses, wetland habitat, marsh, vernal pools, or coastal resources, and would not result in a substantial adverse effect on State- or federally-protected wetlands through direct removal, filling, hydrological interruption, or other means. No impact would occur and mitigation is not required.

Threshold d: Would the Project interfere substantially with the movement of any resident or migratory fish or wildlife species or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites?

The Project site does not serve as a wildlife corridor, MSHCP corridor, nor is it connected to an established corridor, or adjacent to an established corridor (GLA, 2020a, p. 44). The Project site lacks migratory wildlife linkages and there are no native wildlife nurseries on or adjacent to the Project site (ibid.). Therefore, there is no potential for the Project to impede the use of a native wildlife nursery site or interfere with the movement of native migratory fish or wildlife species. Based on the foregoing information, the Project would result in no impact to any resident or migratory fish or wildlife species, established wildlife corridor, or native wildlife nursery sites.

Implementation of the Project would result in the removal of vegetation (i.e., ornamental trees, shrubs and ground cover) that has the potential to provide roosting and nesting habitat for birds, including migratory and common raptor species (GLA, 2020a, p. 44). If active nests are present in vegetation to be removed during Project construction, implementation of the Project could result in substantial, adverse effects to biological resources (i.e., bird nests) that are protected by the MBTA and California Fish and Game Code. The Project's potential to impact nesting birds is a significant impact for which mitigation is required.

Threshold e: Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The City of Moreno Valley Municipal Code contains provisions for the protection of the Stephens' Kangaroo Rat pursuant to the Stephens' Kangaroo Rat HCP (refer to Title 8, Chapter 8.60 of the Municipal Code). The Project site is not located within an identified reserve area for the Stephens' Kangaroo Rat and the species has a low to moderate potential to occur on the Project site (GLA, 2020a, p. 33). In addition, the species was not observed during biological surveys of the Project site (ibid.). Accordingly, the Project is exempt from the focused survey requirements for the Stephens' Kangaroo Rat established by the City's Municipal Code. The Project Applicant is required to contribute a local development impact and mitigation fee, which requires a fee payment to assist the City in implementing the habitat conservation plan for the Stephens' Kangaroo Rat. With mandatory compliance with standard regulatory requirements (i.e., development impact and mitigation fee payment), the proposed Project would not conflict with any City policies or ordinances related to the protection of the Stephens' Kangaroo Rat.

The City of Moreno Valley Municipal Code Chapter 3.48 also contains provisions for the collection of mitigation fees to further the implementation of the Western Riverside County MSHCP. The Project Applicant is required to contribute a local mitigation fee, which requires a fee payment to assist the City in implementing the Western Riverside County MSHCP reserve system (including the acquisition, management, and long-term



maintenance of sensitive habitat areas). With mandatory compliance with standard regulatory requirements (i.e., mitigation fee payment), the Project would not conflict with any City policies or ordinances related to the mitigation fee program associated with Western Riverside County MSHCP.

The City of Moreno Valley does not have any additional policies or ordinances in place to protect biological resources that are applicable to the Project. Impacts would be less than significant.

Threshold f: Would the Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, other approved local, regional, or State habitat conservation plan?

The following analysis evaluates the Project’s compliance with the Western Riverside County MSHCP’s Reserve Assembly Requirements as well as other applicable MSHCP requirements pursuant to the following sections of the MSHCP: Section 6.1.2, *Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools*; Section 6.1.3, *Protection of Narrow Endemic Plant Species*; Section 6.1.4, *Guidelines Pertaining to the Urban/Wildland Interface*; and Section 6.3.2, *Additional Survey Needs and Procedures*.

Project Relation to Reserve Assembly

The Project site occurs within the Reche Canyon/Badlands Area Plan of the Western Riverside County MSHCP; but, the Project site does not occur within a MSHCP Criteria Area nor is it located within any Criteria Cell (GLA, 2020a, p. 48). As such, the Project is not required to set aside conservation lands pursuant to the Western Riverside County MSHCP, and the Project is not subject to the MSHCP’s Habitat Evaluation and Acquisition Negotiation Strategy (HANS) process nor Joint Project Review (JPR). Accordingly, the Project would not conflict with the Western Riverside County MSHCP Reserve Assembly requirements and no impact would occur.

Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools

The Project survey area does not contain any MSHCP vernal pools or seasonal pools. The Project site does contain three MSHCP riparian/riverine features, the Quincy Channel and Ditches 1 and 2, of which 0.57-acre (3,570 linear feet) representing the entirety of Ditches 1 and 2 would be permanently impacted from implementation of the Project. Implementation of the Project would not impact the Quincy Channel. As required by the MSHCP, a Determination of Biologically Equivalent or Superior Preservation (DBESP) report is required in all instances where MSHCP riparian/riverine areas would be impacted by a development project. The goal of the DBESP report is to demonstrate that the development project provides mitigation that is biologically equivalent or superior to the existing conditions on the project site if left undisturbed. The Project’s DBESP report is attached to this EIR as *Technical Appendix C3*.

According to the Project’s DBESP report conducted by GLA, the Project survey area has been disturbed and utilized for dry farming (i.e., agricultural production) for over 50 years; therefore, the 0.57-acre of MSHCP riverine area associated with Ditches 1 and 2 that would be impacted by the Project exhibit low function and value compared to the provision of compensatory mitigation at a local mitigation bank or in-lieu fee program as described in Mitigation Measure MM 4.3-2 (GLA, 2020a, p. 49; GLA, 2020c, p. 8). Accordingly, the purchase of compensatory re-establishment and rehabilitation mitigation credits would be considered superior



mitigation as compared to the preservation of 0.57-acre of roadside ditches because the proposed re-establishment and rehabilitation credits would consist of riparian habitat areas with habitat functions that would be superior to the existing conditions at the Project site (ibid.). As such, with implementation of MM 4.3-2, the Project's significant impacts to MSHCP riverine areas would be reduced to less than significant and the Project would not conflict with Section 6.1.2 of the Western Riverside County MSHCP.

Protection of Narrow Endemic Plants

The Project survey area is not located within the Narrow Endemic Plant Species Survey Area (NEPSSA) and is not subject to focused surveys for special-status plants. Implementation of the Project would not conflict with Section 6.1.3 of the Western Riverside County MSHCP (GLA, 2020a, p. 49).

Guidelines Pertaining to Urban/Wildland Interface

The Western Riverside County MSHCP Urban/Wildland Interface Guidelines are intended to address indirect effects associated with locating development in proximity to the MSHCP Conservation Area, including Public/Quasi-Public lands. As the Western Riverside County MSHCP Conservation Area is assembled, development is expected to occur adjacent to the Conservation Area and edge effects with the potential to adversely affect biological resources within the Conservation Area are required to be evaluated. The Project survey area is not adjacent to any MSHCP conservation areas (GLA, 2020a, p. 50). As such, implementation of the Project has no potential to result in substantial adverse indirect effects in proximity to a MSHCP Conservation Area that supports natural and/or sensitive biological resources. Implementation of the Project would not conflict with Section 6.1.4 of the Western Riverside County MSHCP.

Additional Needs Survey and Procedures

Western Riverside County MSHCP Section 6.3.2 identifies that in addition to the Narrow Endemic Plant Species addressed in Section 6.1.3, additional surveys may be needed for other certain plant and wildlife species in conjunction with MSHCP implementation in order to achieve full coverage for these species. Within areas of suitable habitat, focused surveys are required for additional plant species if a project site occurs within a designated CAPSSA, or occurs within a special wildlife species survey area (i.e., burrowing owl, amphibians, and mammals).

The Project site is not located within a CAPSSA but is located within the Burrowing Owl Survey Area (GLA, 2020a, p. 50). GLA conducted a focused survey for the burrowing owl in 2020 in accordance with the Western Riverside County MSHCP Burrowing Owl Survey Requirements. As discussed in the response to Threshold "a," GLA did not observe any burrowing owls or signs of the species' use of the property (i.e., scat, tracks, pellets, or feathers) during field surveys. However, the species is nomadic and could migrate onto the property prior to ground-disturbing construction activities. Therefore, if the species is present on the Project site at the time that grading commences, significant impacts would occur. This EIR recommends a pre-construction survey to determine if the species is present within 30 days of the commencement of construction activities, and if the survey is positive, this EIR recommends additional mitigation (refer to Subsection 4.3.7) to ensure Project consistency with Section 6.3.2 of the Western Riverside County MSHCP.



4.3.5 CUMULATIVE IMPACT ANALYSIS

This cumulative impact analysis for biological resources considers development of the Project site in conjunction with other development projects in the vicinity of the Project site as well as full General Plan buildout in the City of Moreno Valley and other jurisdictions in the region within the boundaries of the Western Riverside County MSHCP.

The Project would not impact any special-status plant species and there is no potential for the Project site to support special-status plant species due to the lack of suitable, natural habitat. Accordingly, there is no potential for implementation of the Project to contribute to a substantial adverse cumulatively-considerable impact to special-status plant species.

The Project site contains approximately 56.7 acres of suitable foraging habitat for the northern harrier, loggerhead shrike, and white-tailed kite, and approximately 3.5 acres of suitable habitat for the Los Angeles pocket mouse, northwestern San Diego pocket mouse, and San Diego black-tailed jackrabbit. However, these special-status animal species are covered under the Western Riverside MSHCP; therefore, with mandatory compliance to the Western Riverside MSHCP, implementation of the Project would not contribute to a substantial adverse cumulatively-considerable impact to these aforementioned special-status animals.

Although the burrowing owl was not observed within the Project survey area during field surveys conducted in 2020, there is the potential for this species to migrate onto the site and occupy the property prior to the initiation of construction activities. The burrowing owl is commonly found within the Project vicinity; as such, it is reasonable to conclude that impacts to the burrowing owl habitat would occur in conjunction with development of other properties throughout western Riverside County. The burrowing owl is not yet adequately conserved under the MSHCP; thus, the Project has the potential to contribute to a cumulatively-considerable impact to the burrowing owl.

The Project would permanently impact 0.57-acre of sensitive habitat under CDFW jurisdiction; therefore, the Project would contribute to a substantial adverse cumulatively-considerable impact to sensitive habitat.

The Project would not impact any State or federally-protected wetlands. Accordingly, the Project has no potential to contribute to a cumulatively-considerable impact to State or federally-protected wetlands.

The Project would result in the removal of vegetation that has the potential to support nesting birds protected by federal and State regulations. A wide range of habitat and vegetation types have the potential to support nesting birds; therefore, it is likely that other development projects within the cumulative study area also may impact nesting birds. However, the Project – like all other development activities in the cumulative study area – would be required to comply with State and federal law to preclude impacts to nesting birds. The Project’s potential impact to nesting birds would be cumulatively-considerable absent compliance to State and federal regulations.

The Project would not conflict with any local policies or ordinances protecting biological resources. Other development projects in the cumulative study area would be required to comply with applicable local policies and/or ordinances related to the protection of biological resources as a standard condition of review/approval.



Because the Project and cumulative development would be prohibited from violating applicable, local policies or ordinances related to the protection of biological resources, a cumulatively-considerable impact would not occur.

The Project site is subject to the Western Riverside County MSHCP and its survey requirements for the burrowing owl. As previously discussed in Thresholds “a” and “f,” the Project site contains habitat suitable for the burrowing owl. Therefore, the Project has the potential to conflict with Section 6.3.2 of the Western Riverside County MSHCP, and a cumulatively-considerable impact would occur prior to mitigation. Also, as previously discussed in Threshold “b,” the Project would impact approximately 0.57-acre of MSHCP riverine area. Therefore, the Project has the potential to conflict with Section 6.1.2 of the Western County MSHCP, and a cumulatively-considerable impact would occur prior to mitigation.

4.3.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold a: Significant Direct and Cumulatively-Considerable Impact. The Project site contains suitable foraging and nesting habitat for the burrowing owl. In the event the burrowing owl is present on the Project site at the time construction commences, implementation of the Project has the potential to take burrowing owl individuals.

Threshold b: Significant Direct and Cumulatively-Considerable Impact. The Project would permanently impact 0.57-acre of sensitive habitat as defined by CDFW.

Threshold c: No Impact. The Project would permanently impact 0.39-acre of RWQCB jurisdiction, none of which consists of State or federally protected wetlands; therefore, the Project would not have a substantial adverse effect on State or federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means.

Threshold d: Significant Direct and Cumulatively-Considerable Impact. There is no potential for the Project to interfere with the movement of fish or impede the use of a native wildlife nursery site. However, the Project has the potential to impact nesting migratory birds protected by the MBTA and CFGC, should habitat removal occur during the nesting season and should nesting birds be present.

Threshold e: Less-than-Significant Impact. The Project would not conflict with any local policies or ordinances protecting biological resources.

Threshold f: Significant Direct and Cumulatively-Considerable Impact. The Project site is subject to the Western Riverside County MSHCP and its survey requirements for the western burrowing owl. Although the Project is compliant with all MSHCP provisions and although burrowing owl is absent from the Project site under existing conditions, the Project site contains habitat suitable for the species. If the species migrates onto the Project site is present on the property at the time a grading permit is issued, impacts would be significant. The Project also would impact approximately 0.57-acre of MSHCP riverine area, which would be significant.



4.3.7 MITIGATION

The following mitigation measures address potential Project-related impacts to the burrowing owl:

MM 4.3-1 Within 30 days prior to grading, a qualified biologist shall conduct a survey of suitable habitat on site and make a determination regarding the presence or absence of the burrowing owl. The determination shall be documented in a report and shall be submitted, reviewed, and accepted by the City of Moreno Valley prior to the issuance of a grading permit and subject to the following provisions:

- a) In the event that the pre-construction survey identifies no burrowing owls on the property a grading permit may be issued without restriction.
- b) In the event that the pre-construction survey identifies the presence of at least one individual but less than three (3) mating pairs of burrowing owl, then prior to the issuance of a grading permit and prior to the commencement of ground-disturbing activities on the property, the qualified biologist shall passively or actively relocate any burrowing owls. Passive relocation, including the required use of one-way doors to exclude owls from the site and the collapsing of burrows, will occur if the biologist determines that the proximity and availability of alternate habitat is suitable for successful passive relocation. Passive relocation shall follow CDFW relocation protocol and shall only occur between September 15 and February 1. If proximate alternate habitat is not present as determined by the biologist, active relocation shall follow CDFW relocation protocol. The biologist shall confirm in writing that the species has fledged the site or been relocated prior to the issuance of a grading permit.
- c) In the event that the pre-construction survey identifies the presence of three (3) or more mating pairs of burrowing owl, the requirements of MSCHP Species-Specific Conservation Objectives 5 for the burrowing owl shall be followed. Objective 5 states that if the site (including adjacent areas) supports three (3) or more pairs of burrowing owls and supports greater than 35 acres of suitable habitat, at least 90 percent of the area with long-term conservation value and burrowing owl pairs will be conserved onsite until it is demonstrated that Objectives 1-4 have been met. A grading permit shall be issued, either:
 - i. Upon approval and implementation of a property-specific Determination of Biologically Superior Preservation (DBESP) report for the burrowing owl by the CDFW; or
 - ii. A determination by the biologist that the site is part of an area supporting less than 35 acres of suitable Habitat, and upon passive or active relocation of the species following accepted CDFW protocols. Passive relocation, including the required use of one-way doors to exclude owls from the site and the collapsing of burrows, will occur if the biologist determines that the proximity and availability of alternate habitat is suitable for successful passive relocation. Passive relocation shall follow CDFW



relocation protocol and shall only occur between September 15 and February 1. If proximate alternate habitat is not present as determined by the biologist, active relocation shall follow CDFW relocation protocol. The biologist shall confirm in writing that the species has fledged the site or been relocated prior to the issuance of a grading permit.

The following mitigation measure addresses impacts to sensitive natural communities identified by CDFW.

MM 4.3-2 Prior to the issuance of grading permits, the Project Applicant shall obtain a Section 1602 Streambed Alteration Agreement from CDFW and a Section 13260 Waste Discharge Order from the RWQCB. In addition, the Project Applicant shall purchase 0.57-acre of re-establishment credits (a 1:1 mitigation-to-impact ratio) and 0.57-acre of rehabilitation credits (a 1:1 mitigation-to-impact ratio) from the Riverpark Mitigation Bank to compensate for Project impacts to sensitive habitat identified by CDFW.

In the event that compensatory mitigation credits are not available from the Riverpark Mitigation Bank at the time of grading permit issuance, the Project Applicant shall instead purchase riparian habitat rehabilitation credits from the Santa Ana River Watershed In-Lieu Fee Program (SARW-ILFP) at a 2:1 mitigation-to-impact ratio (1.14 acres). In such an event, the Project's DBESP report (*Technical Appendix C3*) shall be amended to note that the SARW-ILFP would be used as the alternative mitigation program for the Project and the amended DBESP shall be provided to the City of Moreno Valley, the USFWS, and CDFW.

The following mitigation measures would address the potential for Project construction to impact nesting birds, including migratory species.

MM 4.3-3 Vegetation clearing and ground disturbance shall be prohibited during the migratory bird nesting season (January 31 through September 1), unless a migratory bird nesting survey is completed in accordance with the following requirements:

- a) A nesting bird survey shall be conducted on the Project site and within suitable habitat located within a 250-foot radius of the Project site by a qualified biologist within three (3) days prior to initiating vegetation clearing or ground disturbance.
- b) If the survey identifies the presence of active nests, then the nests shall not be disturbed unless the qualified biologist verifies through non-invasive methods that either (i) the adult birds have not begun egg-laying and incubation; or (ii) the juveniles from the occupied nests are capable of independent survival.
- c) If the biologist is not able to verify any of the conditions from sub-item "b," above, then no disturbance shall occur within a buffer zone specified by the qualified biologist for each nest or nesting site. The buffer zone shall be species-appropriate (no less than 100-foot radius around the nest for non-raptors and no more than a 500-foot radius around the nest



for raptors) and shall be sufficient to protect the nest from direct and indirect impacts from construction activities. The size and location of buffer zones, if required, shall be based on consultation with the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service and shall be subject to review and approval by the City of Moreno Valley. The nests and buffer zones shall be field checked weekly by a qualified biological monitor. The approved buffer zone shall be marked in the field with construction fencing, within which no vegetation clearing or ground disturbance shall commence until the qualified biologist with City concurrence verify that the nests are no longer occupied and/or juvenile birds can survive independently from the nests.

4.3.8 SIGNIFICANCE OF IMPACT AFTER MITIGATION

Thresholds a, b, & f: Less-than-Significant Impact with Mitigation. Implementation of MM 4.3-1 would ensure that pre-construction surveys are conducted for the burrowing owl to determine the presence or absence of the species on the Project site. If present, the mitigation measure provides performance criteria that requires avoidance and/or relocation of burrowing owls in accordance with CDFW protocol. With implementation of the required mitigation, potential direct and cumulatively-considerable impacts to the burrowing owl would be reduced to below a level of significance.

Implementation of Mitigation Measure MM 4.3-2 would ensure that the Project Applicant obtains a Section 1602 Streambed Alteration Agreement from CDFW and a Section 13260 Waste Discharge Order from the RWQCB and would fully compensate for the permanent impacts to 0.57-acre of sensitive habitat under CDFW jurisdiction through the purchasing of credits from the Riverpark Mitigation Bank or the SARW-ILFP. With implementation of the required mitigation, direct and cumulatively-considerable impacts to sensitive habitat would be reduced to below a level of significance.

Threshold d: Less-than-Significant Impact with Mitigation. Implementation of Mitigation Measure MM 4.3-3 would ensure that pre-construction surveys are conducted for nesting birds protected by the federal MBTA during the breeding season to determine presence or absence prior to disturbance of habitat with the potential to support nesting birds. If nesting birds are present, the mitigation requires avoidance of active bird nests in conformance with accepted protocols and regulatory requirements. With implementation of the required mitigation, potential direct and cumulatively-considerable impacts to nesting birds protected by the federal MBTA would be reduced to below a level of significance.



4.4 CULTURAL RESOURCES

The analysis in this Subsection is based, primarily, on the “Moreno Valley Trade Center Project Cultural Resources Assessment Report,” dated November 2019 and prepared by Rincon Consultants, Inc. (hereinafter, “Rincon”). The cultural resources assessment report is included as *Technical Appendix D* to this EIR.

Confidential information has been redacted from *Technical Appendix D* for purposes of public review. In addition, much of the written and oral communication between Native American tribes, the City of Moreno Valley, and Rincon is considered confidential in respect to places that may have traditional tribal cultural significance (Government Code Section 65352.4), and although relied upon in part to inform the preparation of this EIR Subsection, those communications are treated as confidential and are not available for public review. Under existing law, environmental documents must not include information about the location of archeological sites or sacred lands or any other information that is exempt from public disclosure pursuant to the Public Records Act (California Code Regulations Section 15120(d)).

4.4.1 EXISTING CONDITIONS

A. Prehistoric Cultural Resources

1. *Regional Setting*

The Project site is located in the eastern portion of the City of Moreno Valley, Riverside County, California. The Early Man Horizon, Milling Stone Horizon, Intermediate Horizon, and Late Prehistoric Horizon are the four (4) general prehistoric cultural periods represented in Riverside County, as summarized below (Rincon, 2019a, pp. 9-11). Refer to *Technical Appendix D* for a detailed discussion about the prehistoric cultural periods in Riverside County.

- Early Man Horizon (10,000 – 6,000 BCE). The Early Man economy was a diverse mixture of hunting and gathering, including a significant focus on aquatic resources in coastal areas and on inland Pleistocene lakeshores. A warm and dry 3,000-year period (Altithermal) began around 6,000 BCE. The conditions of the Altithermal are likely responsible for the change in human subsistence patterns at this time, including a greater emphasis on plant foods and small game.
- Milling Stone Horizon (6,000 – 3,000 BCE). The Milling Stone Horizon is defined as “marked by extensive use of milling stones and mullers, a general lack of well-made projectile points, and burials with rock cairns.” The dominance of such artifact types indicates a subsistence strategy oriented around collecting plant foods and small animals. Locally available tool stone dominates lithic artifacts associated with Milling Stone Horizon sites; common ground stone tools include manos and metates, and chopping, scraping, and cutting tools.
- Intermediate Horizon (3,000 BCE – CE 500). Intermediate Horizon is characterized by a shift toward a hunting and maritime subsistence strategy, as well as greater use of plant foods. During the Intermediate Horizon, a noticeable trend occurred toward greater adaptation to local resources, including a broad variety of fish, land mammal, and sea mammal remains along the coast. Mortars and pestles became more common during this transitional period, gradually replacing manos and metates as the dominant milling equipment.



- Late Prehistoric Horizon (CE 500 – Historic Contact). During the Late Prehistoric Horizon, the diversity of plant food resources and land and sea mammal hunting increased even further. More classes of artifacts were observed during this period, including small, finely-worked projectile points associated with the bow and arrow, steatite containers for cooking and storage, and artistic artifacts. Cremation became a common mortuary custom during the Late Prehistoric Horizon. It is believed that the dramatic change in material culture, burial practices, and subsistence focus was caused by the westward migration of desert people called the Takic, or Numic, Tradition in Los Angeles, Orange, and western Riverside Counties. Linguistic, biological, and archaeological evidence supports the hypothesis that Takic peoples from the Southern San Joaquin Valley and/or western Mojave Desert entered southern California 3,500 years ago to occupy the Los Angeles/Orange County area.

2. *Project Site Conditions*

Rincon conducted an intensive pedestrian survey of the Project site on October 2 and 4, 2019. The pedestrian survey consisted of a series of transects spaced at approximately 15-meter intervals to examine all exposed ground surfaces. Ground disturbances such as burrows and drainages also were visually inspected for evidence of buried cultural materials. No prehistoric resource sites or isolates were identified on the Project site during the pedestrian survey (Rincon, 2019a, pp. 27, 36).

Rincon also conducted an archaeological records search through the Eastern Information Center (EIC) at University of California, Riverside (UCR). The records search provided information regarding previous archaeological studies in the Project area and any previously recorded prehistoric sites within a one-mile radius of the Project site. The results of this records search indicate 15 prehistoric sites – predominantly bedrock milling features – and two (2) isolates were recorded within a one-mile radius of the site, and no prehistoric artifacts have been previously recorded on the Project site (Rincon, 2019a, pp. 20-21).

B. Historical Cultural Resources

1. Regional Setting

The general historical setting for California is divided into three (3) general periods: the Spanish period (1769-1821), the Mexican period (1821-1848), and the American period (1848-present). Each time period is summarized below and discussed in more detail in *Technical Appendix D* (Rincon, 2019a, pp. 16-18).

- Spanish Period (1769-1821): Spanish exploration of what was then known as Alta (upper) California began when Juan Rodriguez Cabrillo led the first European expedition into the region in 1542 and, for the next 200 years, Spanish, Portuguese, British, and Russian explorers sailed the Alta California coast and made limited inland expeditions but did not establish permanent settlements. In 1769, Gaspar de Portolá and Franciscan Father Junipero Serra established the first Spanish settlement at Mission San Diego de Alcalá. This was the first of 21 missions erected by the Spanish between 1769 and 1823. The establishment of the missions marks the first sustained occupation of Alta California by the Spanish. In addition to the missions, four presidios and three pueblos (towns) were established throughout the state. Spanish entry into what was to become Riverside County did not occur until 1774 when Juan Bautista de Anza led an expedition from Sonora, Mexico to Monterey in northern California. During this period, Spain also deeded ranchos to prominent citizens and soldiers, though



very few in comparison to the subsequent Mexican Period. To manage and expand their herds of cattle on these large ranchos, colonists enlisted the labor of the surrounding Native American population. The influx of European settlers brought the local Native American population in contact with European diseases which they had no immunity against, resulting in catastrophic reduction in native populations throughout the state.

- Mexican Period (1821-1848): The Mexican Period commenced when news of the success of the Mexican War of Independence (1810-1821) reached California in 1822. This period saw the federalization of mission lands in California with the passage of the Secularization Act of 1833, which enabled Mexican governors in California to distribute former mission lands to individuals in the form of land grants. Successive Mexican governors made more than 700 land grants between 1822 and 1846, putting most of the state's lands into private ownership for the first time. About 15 land grants (ranchos) were located in Riverside County. The Project site is situated in what was once Rancho San Jacinto, which included much of the San Jacinto Plains that stretched from Box Springs to the San Jacinto Mountains and between the Badlands and Temecula.
- American Period (1848-Present): The American Period officially began with the signing of the Treaty of Guadalupe Hidalgo in 1848, in which Mexico ceded territory – including California – to the United States. Settlement of southern California increased dramatically in the early American Period. Many ranchos were sold or otherwise acquired by Americans, and most were subdivided into agricultural parcels or towns. Southern California remained dominated by cattle ranches in the early American period, though droughts and increasing population resulted in farming and more urban professions supplanting ranching through the late nineteenth century.

In 1893, Riverside County was created from portions of then-San Bernardino and San Diego Counties. Early settlers to the Moreno Valley area were engaged in dry farming, as a reliable water source had not yet been secured. In 1890, the Alessandro Irrigation District was established, and construction began on an intricate series of pipelines to bring water to the valley. The arrival of water, via the Moreno Tunnel, in 1891 led to increased investment in the area's agricultural economy. Following this development, large-scale fruit and citrus farms were established in the area. This development provided only a temporary boom, as lawsuits over water rights led to a loss of water delivery in the Moreno Valley in 1899. Public and private wells were eventually produced and by 1912 the Moreno Mutual Water Company had identified a reliable source of water. As a result, the area's population again increased, and the area resumed citrus production along with much of Riverside County.

Originally established as Alessandro Flying Training Field in 1918, March Field was constructed in the Moreno Valley as the country anticipated entry into World War I. March Field has played a key role in providing skilled crews for many international conflicts and remains in operation as a reserve base today. The founding and lasting presence of March Field has contributed to the expansion of the Moreno Valley, as services and amenities for those stationed there has remained a necessity since its founding.

Through the 1970's the City of Moreno Valley experienced steady growth. The Riverside International Raceway and the Lake Perris Recreation Area were established in 1957 and 1973 respectively. The



valley experienced a boom in the 1980s; the decade saw the population increase two-fold (from roughly 19,000 to almost 50,000). While votes for incorporation failed in 1968 and 1983, in 1984 the City of Moreno Valley was officially incorporated. The city has continued to expand in recent decades and today it is largely occupied by suburban development.

2. *Project Site Conditions*

Rincon conducted a pedestrian survey of the Project site and reviewed historical records databases to identify the presence or absence of historic-period cultural resources on the Project site.

Under existing conditions, the Project site contains two (2) historic-period cultural resources: the remnants of a residential complex and the Adam Hall Plant Nursery (Rincon, 2019a, pp. 25, 29-35). The remnants of the residential complex are located in the center of the Project site and consist of two (2) concrete foundations with associated wood building debris, a brick-lined trough, an irrigation system, and several trees (ibid.). The age of the residential complex remnants are unknown but are likely from the time period between the 1940s and 1960s (ibid.). The remnants of the residential complex were first evaluated in 2006 and recorded in the California Historical Resources Information System as Site P-33-015796 (ibid.). The Adam Hall Plant Nursery is located in the southeast corner of the Project site and consists of a variety of shade and storage structures and five (5) permanent buildings constructed between 1953 and 1966, including three (3) residences, one (1) ancillary garage and one (1) small office space (ibid.).

Based on archival research, 25 historic-period cultural resources have been recorded within a one-mile radius of the Project site. The resources that have been recorded in the proximity of the Project site are primarily associated with historic agricultural activities in the area. Only one of the recorded historic-period cultural resources, Site P33-015796 described above, is located within the Project site (Rincon, 2019a, p. 20).

4.4.2 REGULATORY SETTING

The following is a brief description of the federal, State, and local environmental laws and related regulations governing the protection of prehistoric- and historic-period cultural resources.

A. *Federal Plans, Policies, and Regulations*

1. *National Historic Preservation Act*

The National Historic Preservation Act of 1966 (NHPA) was passed primarily to acknowledge the importance of protecting our nation's heritage (NPS, 2020a). While Congress recognized that national goals for historic preservation could best be achieved by supporting the drive, enthusiasm, and wishes of local citizens and communities, it understood that the federal government must set an example through enlightened policies and practices. In the words of the Act, the federal government's role would be to "provide leadership" for preservation, "contribute to" and "give maximum encouragement" to preservation, and "foster conditions under which our modern society and our prehistoric and historic resources can exist in productive harmony."

NHPA and related legislation sought a partnership among the federal government and the states that would capitalize on the strengths of each. The federal government, led by the National Park Service (NPS) provides



funding assistance; basic technical knowledge and tools; and a broad national perspective on America's heritage. The states, through State Historic Preservation Officers (SHPOs) appointed by the governor of each state, would provide matching funds, a designated state office, and a statewide preservation program tailored to state and local needs and designed to support and promote state and local historic preservation interests and priorities.

Section 106 of NHPA granted legal status to historic preservation in federal planning, decision-making, and project execution. Section 106 requires all federal agencies to take into account the effects of their actions on historic properties.

A number of additional executive and legislative actions have been directed toward improving the ways in which all federal agencies manage historic properties and consider historic and cultural values in their planning and assistance. Executive Order 11593 (1971) and, later, Section 110 of NHPA (1980, amended 1992), provided the broadest of these mandates, giving federal agencies clear direction to identify and consider historic properties in federal and federally assisted actions. The National Historic Preservation Amendments of 1992 further clarified Section 110 and directed federal agencies to establish preservation programs commensurate with their missions and the effects of their authorized programs on historic properties.

2. *National Register of Historic Places*

The National Register of Historic Places is the official list of the Nation's historic places worthy of preservation (NPS, n.d.). Authorized by the National Historic Preservation Act of 1966, the NPS's National Register of Historic Places (NRHP) is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect America's historic and archeological resources.

To be considered eligible, a property must meet the National Register Criteria for Evaluation. This involves examining the property's age, integrity, and significance, as follows:

- Age and Integrity. Is the property old enough to be considered historic (generally at least 50 years old) and does it still look much the way it did in the past?
- Significance. Is the property associated with events, activities, or developments that were important in the past? With the lives of people who were important in the past? With significant architectural history, landscape history, or engineering achievements? Does it have the potential to yield information through archeological investigation about our past? (NPS, n.d.)

Nominations can be submitted to a SHPO from property owners, historical societies, preservation organizations, governmental agencies, and other individuals or groups. The SHPO notifies affected property owners and local governments and solicits public comment. If the owner (or a majority of owners for a district nomination) objects, the property cannot be listed but may be forwarded to the National Park Service (NPS) for a Determination of Eligibility (DOE). Listing in the National Register of Historic Places provides formal recognition of a property's historical, architectural, or archeological significance based on national standards used by every state.



Under Federal Law, the listing of a property in the National Register places no restrictions on what a non-federal owner may do with their property up to and including destruction, unless the property is involved in a project that receives Federal assistance, usually funding or licensing/permitting. National Register listing does not lead to public acquisition or require public access.

3. *Native American Graves Protection and Repatriation Act*

The Native American Graves Protection and Repatriation Act (NAGPRA; Public Law 101-601; 25 U.S.C. 3001-3013) describes the rights of Native American lineal descendants, Indian tribes, and Native Hawaiian organizations with respect to the treatment, repatriation, and disposition of Native American human remains, funerary objects, sacred objects, and objects of cultural patrimony, referred to collectively in the statute as cultural items, with which they can show a relationship of lineal descent or cultural affiliation (NPS, 2020b).

One major purpose of this statute is to require that federal agencies and museums receiving federal funds inventory holdings of Native American human remains and funerary objects and provide written summaries of other cultural items. The agencies and museums must consult with Indian Tribes and Native Hawaiian organizations to attempt to reach agreements on the repatriation or other disposition of these remains and objects. Once lineal descent or cultural affiliation has been established, and in some cases the right of possession also has been demonstrated, lineal descendants, affiliated Indian Tribes, or affiliated Native Hawaiian organizations normally make the final determination about the disposition of cultural items. Disposition may take many forms from reburial to long term curation, according to the wishes of the lineal descendent(s) or culturally affiliated Tribe(s).

The second major purpose of the statute is to provide greater protection for Native American burial sites and more careful control over the removal of Native American human remains, funerary objects, sacred objects, and items of cultural patrimony on federal and tribal lands. NAGPRA requires that Indian tribes or Native Hawaiian organizations be consulted whenever archeological investigations encounter, or are expected to encounter, Native American cultural items or when such items are unexpectedly discovered on federal or tribal lands. Excavation or removal of any such items also must be done under procedures required by the Archaeological Resources Protection Act. This NAGPRA requirement is likely to encourage the in-situ preservation of archaeological sites, or at least the portions of them that contain burials or other kinds of cultural items.

Other provisions of NAGPRA: (1) stipulate that illegal trafficking in human remains and cultural items may result in criminal penalties; (2) authorizes the Secretary of the Interior to administer a grants program to assist museums and Indian Tribes in complying with certain requirements of the statute; (3) requires the Secretary of the Interior to establish a Review Committee to provide advice and assistance in carrying out key provisions of the statute; authorizes the Secretary of the Interior to penalize museums that fail to comply with the statute; and, (5) directs the Secretary to develop regulations in consultation with this Review Committee.



B. State Plans, Policies, and Regulations

1. California Administrative Code, Title 14, Section 4308

Section 4308, Archaeological Features, of Title 14 of the California Administrative Code provides that: “No person shall remove, injure, disfigure, deface, or destroy any object of archaeological, or historical interest or value.”

2. California Code of Regulations Title 14, Section 1427

California Code of Regulations Title 14, Section 1427 provides that: “No person shall collect or remove any object or thing of archeological or historical interest or value, nor shall any person injure, disfigure, deface or destroy the physical site, location or context in which the object or thing of archeological or historical interest or value is found.”

3. California Register of Historic Resources

The State Historical Resources Commission has designed this program for use by State and local agencies, private groups, and citizens to identify, evaluate, register, and protect California's historical resources (OHP, 2020). The Register is the authoritative guide to the State's significant historical and archeological resources. The California Register program encourages public recognition and protection of resources of architectural, historical, archeological, and cultural significance; identifies historical resources for State and local planning purposes; determines eligibility for state historic preservation grant funding; and affords certain protections under CEQA.

In order for a resource to be included on the Register of Historic Resources, the resources must meet one of the following criteria (ibid.):

- Associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States (Criterion 1).
- Associated with the lives of persons important to local, California or national history (Criterion 2).
- Embodies the distinctive characteristics of a type, period, region, or method of construction or represents the work of a master or possesses high artistic values (Criterion 3).
- Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation (Criterion 4).

For resources included on the Register of Historic Resources, environmental review may be required under CEQA if the resource is threatened by a project. Additionally, local building inspectors must grant code alternatives provided under State Historical Building Code. Further, the local assessor may enter into contract with property owner for property tax reduction pursuant to the Mills Act. A property owner also may place his or her own plaque or marker at the site of the resource. (OHP, 2020)



Consent of owner is not required, but a resource cannot be listed over an owner's objections. The State Historical Resources Commission (SHRC) can, however, formally determine a property eligible for the California Register if the resource owner objects.

4. State Health and Safety Code

California Health and Safety Code (HSC) Section 7050.5(b) requires that excavation and disturbance activities must cease "In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery..." until the coroner can determine regarding the circumstances, manner, and cause of any death (CA Legislative Information, n.d.). The coroner is then required to make recommendations concerning the treatment and disposition of the human remains. Further, this section of the code makes it a misdemeanor to intentionally disturb, mutilate or remove interred human remains. Section 7051 specifies that the removal of human remains from "internment or a place of storage while awaiting internment" with the intent to sell them or to dissect them with "malice or wantonness" is a public offense punishable by imprisonment in a state prison. Lastly, HSC Sections 8010-8011 establish the California Native American Graves Protection and Repatriation Act consistent with the federal law addressing the same. The Act stresses that "all California Indian human remains and cultural items are to be treated with dignity and respect." It encourages voluntary disclosure and return of remains and cultural items by publicly funded agencies and museums in California. It also outlines the need for aiding California Indian tribes, including non-federally recognized tribes, in filing repatriation claims.

5. California Code of Regulations Section 15064.5

The California Code of Regulations, Title 14, Chapter 3, Section 15064.5 (the State CEQA Guidelines) establishes the procedure for determining the significance of impacts to archeological and historical resources, as well as classifying the type of resource. Cultural resources are aspects of the environment that require identification and assessment for potential significance. The evaluation of cultural resources under CEQA is based upon the definitions of resources provided in CEQA Guidelines Section 15064.5, as follows:

- A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (Public Resources Code Section 5024.1, Title 14 CCR, Section 4850 *et seq.*).
- A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements of Section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
- Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of



Historical Resources (Public Resources Code Section 5024.1, Title 14 CCR, Section 4852) including the following:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
 - Is associated with the lives of persons important in our past;
 - Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
 - Has yielded, or may be likely to yield, information important in prehistory or history.
- The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to Section 5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in Section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code Sections 5020.1(j) or 5024.1.

4.4.3 BASIS FOR DETERMINING SIGNIFICANCE

The Project would result in a significant impact to cultural resources if the Project or any Project-related component would:

- a. *Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5;*
- b. *Cause a substantial adverse change in the significance of an archaeological resources pursuant to Section 15064.5; or*
- c. *Disturb any human remains, including those interred outside of formal cemeteries.*

The above-listed thresholds are referenced in the *City of Moreno Valley Rules and Procedures for the Implementation of the California Environmental Quality Act* and address the typical, adverse effects related to cultural resources that could result from development projects.

4.4.4 IMPACT ANALYSIS

The proposed warehouse distribution/logistics facility and the conceptual fulfillment/e-commerce facility site plans described in EIR Section 3.0, *Project Description*, would result in identical ground-disturbing impacts. Thus, the analysis provided on the following pages addresses the potential impacts to cultural resources that would result from implementation of the Project for either warehouse distribution/logistics or fulfillment/e-commerce uses.



Threshold a: Would the Project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

Implementation of the Project would require the demolition of all structures and site improvements that are located on the Project site under existing conditions. As described under Subsection 4.4.1B.2, the Project site contains two (2) historic-period cultural resources: the remnants of a residential complex (previously recorded as Site P-33-015796) and the Adam Hall Plant Nursery.

Site P-33-015796 consists of two (2) concrete foundations with associated building debris, a brick-lined trough, remnants of an irrigation system, and several trees. The building and irrigation system remnants are composed of common materials and do not exhibit architectural or engineering merits. The site is not representative of any known or identifiable trend in the development of Moreno Valley, does not associate with any important historic figure or event, and has little potential to yield important archaeological information on local historical development. Accordingly, Rincon concluded that Site P-33-015796 is not eligible for listing in the California Register of Historical Resources (CRHR) and is ineligible for listing as a City landmark or structure of merit. Based on the foregoing information, Site P-33-015796 does not qualify as a historic resource pursuant to CEQA Guidelines Section 15064.5.

The Adam Hall Plant Nursery is an approximately 8.5-acre property that consists of a variety of shade and storage structures and five (5) buildings, including three (3) residences, an ancillary garage, and a small office space, all of which were constructed between 1953 and 1966. All of the structures have been highly altered over the years through the construction of various additions and replacement of original building materials. Due to a lack of unique elements, association with important historic figures or events, and lack of historic integrity as well as the low likelihood of the Nursery to yield important information on local historic development patterns, Rincon determined that none of the structures within the Adam Hall Plant Nursery are eligible for listing in the CRHR, as a City landmark, or as a City structure of merit. Based on the foregoing information, the Adam Hall Plant Nursery does not qualify as a historic resource pursuant to CEQA Guidelines Section 15064.5.

Accordingly, implementation of the Project would not result in a substantial adverse change to any historical resource as defined by CEQA Guidelines Section 15064.5; no impact would occur.

Threshold b: Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Rincon conducted a cultural resources inventory of the Project site, which included a records search through the EIC at UCR and an intensive pedestrian survey of the site. According to the archival records search, no prehistoric cultural resources have been previously recorded on the Project site and according to the pedestrian survey, no prehistoric cultural resources were observed on the Project site. (Rincon, 2019a, p. 27) Therefore, implementation of the Project would not cause a substantial adverse change in the significance of a known archeological resource pursuant to CEQA Guidelines Section 15064.5.

Due to the lack of prehistoric cultural resources on or near the Project site and the Project site's historic use for agricultural and residential (which have resulted in pervasive ground disturbances on the site), the



likelihood of discovering buried prehistoric cultural resources on the Project site is considered low (Rincon, 2019a, p. 36). Notwithstanding, there is a possibility that prehistoric cultural resources may be present beneath the site's subsurface, and may be impacted by ground-disturbing activities associated with Project construction. If any prehistoric cultural resources are unearthed during Project construction that meet the definition of an archaeological resource pursuant to CEQA Guidelines Section 15064.5 and are disturbed/damaged by Project construction activities, impacts to those prehistoric cultural resources would be significant.

Threshold c: Would the Project disturb any human remains, including those interred outside of formal cemeteries?

The Project site does not contain a cemetery and no known formal cemeteries are located within the immediate site vicinity. Field surveys conducted on the Project site did not identify the presence of any human remains and no human remains are known to exist beneath the surface of the site (Rincon, 2019a, p. 36). Nevertheless, the remote potential exists that human remains may be unearthed during grading and excavation activities associated with Project construction.

If human remains are unearthed during Project construction, the construction contractor would be required by law to comply with California Health and Safety Code Section 7050.5 "Disturbance of Human Remains." According to Section 7050.5(b) and (c), if human remains are discovered, the County Coroner must be contacted and if the Coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, the Coroner is required to contact the Native American Heritage Commission (NAHC) by telephone within 24 hours. Pursuant to California Public Resources Code Section 5097.98, whenever the NAHC receives notification of a discovery of Native American human remains from a county coroner, the NAHC is required to immediately notify those persons it believes to be most likely descended from the deceased Native American. The descendants may, with the permission of the owner of the land, or his or her authorized representative, inspect the site of the discovery of the Native American human remains and may recommend to the owner or the person responsible for the excavation work means for treatment or disposition, with appropriate dignity, of the human remains and any associated grave goods. The descendants shall complete their inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site. According to Public Resources Code Section 5097.94(k), the NAHC is authorized to mediate disputes arising between landowners and known descendants relating to the treatment and disposition of Native American human burials, skeletal remains, and items associated with Native American burials. With mandatory compliance to California Health and Safety Code Section 7050.5 and Public Resources Code § 5097.98, any potential impacts to human remains, including human remains of Native American ancestry, that may result from development of the Project would be less than significant.

4.4.5 CUMULATIVE IMPACT ANALYSIS

The potential for implementation of the Project to contribute to cumulative impacts to historical resources was analyzed in conjunction with other projects located in areas that were once similarly influenced by the historical agricultural industry of the City of Moreno Valley and the region. Record searches and field surveys indicate the absence of significant historic cultural resource sites and resources on and abutting the Project site; therefore, implementation of the Project has no potential to contribute towards a cumulative impact to significant historical sites and/or resources.



The potential for Project construction to result in cumulatively-considerable impacts to prehistoric archaeological resources were also analyzed in conjunction with other projects located in the traditional use areas of Native American tribes that are affiliated to the Project site. Implementation of the Project would not impact any known prehistoric cultural resources and the likelihood of uncovering previously unknown prehistoric cultural resources during Project construction are low due to the severity of ground disturbance that has occurred on and adjacent to the site due to historic agriculture and residential uses. Nonetheless, the potential exists for subsurface prehistoric cultural resource that meet the CEQA Guidelines Section 15064.5 definition of a significant archaeological resource to be discovered during Project construction and during construction of other local development projects. Accordingly, the Project has the potential to contribute to a significant cumulative impact to prehistoric cultural resource sites and/or resources.

Mandatory compliance with the provisions of California Health and Safety Code Section 7050.5 as well as Public Resources Code Section 5097 et seq., would assure that all future development projects within the region treat human remains that may be uncovered during development activities in accordance with prescribed, respectful and appropriate practices, thereby avoiding significant cumulative impacts.

4.4.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold a: No Impact. No historic resources, as defined by CEQA Guidelines Section 15064.5, are present on the Project site; therefore, no historic resources could be altered or destroyed by construction or operation of the Project.

Threshold b: Significant Direct and Cumulatively-Considerable Impact. No known archaeological resources are present on the Project site and the likelihood of uncovering buried prehistoric cultural resources on the Project site is low due to the magnitude of historic ground disturbance on the Project site. Nonetheless, the potential exists for Project-related construction activities to result in a direct and cumulatively-considerable impact to significant subsurface prehistoric archaeological resources should such resources to be discovered during Project-related construction activities.

Threshold c: Less-Than-Significant Impact. In the unlikely event that human remains are discovered during Project grading or other ground disturbing activities, the Project would be required to comply with the applicable provisions of California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097 et seq. Mandatory compliance with State law would ensure that human remains, if encountered, are appropriately treated and would preclude the potential for significant impacts to human remains.

4.4.7 MITIGATION

The following mitigation measures address the potential for Project construction activities to impact significant archaeological resources that may be discovered during ground-disturbing construction activities.

- MM 4.4-1 Prior to the issuance of a grading permit, the Developer shall retain a professional archaeologist, who meets the U.S. Secretary of the Interior Standards (SOI), to conduct monitoring of all mass grading and trenching activities. The Project Archaeologist shall have



the authority to temporarily redirect earthmoving activities in the event that suspected archaeological resources are unearthed during Project construction. The Project Archaeologist, in consultation with the Consulting Tribe(s) including Agua Caliente Band of Cahuilla Indians, Morongo Band of Mission Indians, Pechanga Band of Luiseño Indians, San Manuel Band of Mission Indians, and Soboba Band of Luiseño Indians, the contractor, and the City, shall develop an Archeological Monitoring Plan to address the details, timing and responsibility of all archaeological and cultural activities that will occur on the project site. A consulting tribe is defined as a tribe that initiated the AB52 tribal consultation process for the Project, has not opted out of the AB52 consultation process, and has completed AB52 consultation with the City as provided for in Cal Pub Res Code Section 21080.3.2(b)(1) of AB52. Details in the Plan shall include:

- a) Project grading and development scheduling;
- b) The development of a rotating schedule in coordination with the Developer and the Project Archeologist for designated Native American Tribal Monitors from the consulting tribes during grading, excavation and ground disturbing activities on the site: including the scheduling, safety requirements, duties, scope of work;
- c) The Project archeologist and the Consulting Tribes(s) shall attend the pre-grading meeting with the City, the construction manager and any contractors and will conduct a mandatory Cultural Resources Worker Sensitivity Training to those in attendance. The Training will include a brief review of the cultural sensitivity of the Project and the surrounding area; what resources could potentially be identified during earthmoving activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated; and any other appropriate protocols. All new construction personnel that will conduct earthwork or grading activities that begin work on the Project following the initial Training must take the Cultural Sensitivity Training prior to beginning work and the Project archaeologist and Consulting Tribe(s) shall make themselves available to provide the training on an as-needed basis;
- d) If the Native American Tribal Representatives suspect that an archaeological resource may have been unearthed, the Project Archaeologist or the Tribal Representatives shall immediately redirect grading operations in a 100-foot radius around the find to allow identification and evaluation of the suspected resource. In consultation with the Native American Tribal Representatives, the Project Archaeologist shall evaluate the suspected resource and make a determination of significance pursuant to California Public Resources Code Section 21083.2.
- e) The protocols and stipulations that the contractor, City, Consulting Tribe (s) and Project archaeologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resources evaluation.



- MM 4.4-2 The Developer shall provide a minimum of 30 days advance notice to the tribes of all mass grading and trenching activities.
- MM 4.4-3 In the event that Native American cultural resources are discovered during the course of grading (inadvertent discoveries), the following procedures shall be carried out for final disposition of the discoveries:
- a) One or more of the following treatments, in order of preference, shall be employed with the tribes. Evidence of such shall be provided to the City of Moreno Valley Planning Division:
 - i. Preservation-In-Place of the cultural resources, if feasible. Preservation in place means avoiding the resources, leaving them in the place they were found with no development affecting the integrity of the resources.
 - ii. Onsite reburial of the discovered items as detailed in the treatment plan required pursuant to Mitigation Measure 4.4-1. This shall include measures and provisions to protect the future reburial area from any future impacts in perpetuity. Reburial shall not occur until all legally required cataloging and basic recordation have been completed. No recordation of sacred items is permitted without the written consent of all Consulting Native American Tribal Governments as defined in Mitigation Measure 4.4-1. The location for the future reburial area shall be identified on a confidential exhibit on file with the City, and concurred to by the Consulting Native American Tribal Governments prior to certification of the environmental document.
- MM 4.4-4 The City shall verify that the following note is included on the Grading Plan:
- “If any suspected archaeological resources are discovered during ground-disturbing activities and the Project Archaeologist or Native American Tribal Representatives are not present, the construction supervisor is obligated to halt work in a 100-foot radius around the find and call the Project Archaeologist and the Tribal Representatives to the site to assess the significance of the find.”
- MM 4.4-5 If potential historic or cultural resources are uncovered during excavation or construction activities at the project site, work in the affected area must cease immediately and a qualified person meeting the Secretary of the Interior's standards (36 CFR 61), Tribal Representatives, and all site monitors per the Mitigation Measures, shall be consulted by the City to evaluate the find, and as appropriate recommend alternative measures to avoid, minimize or mitigate negative effects on the historic, or prehistoric resource. Determinations and recommendations by the consultant shall be immediately submitted to the Planning Division for consideration, and implemented as deemed appropriate by the Community Development Director, in consultation with the State Historic Preservation Officer (SHPO) and any and all Consulting Native American Tribes as defined in Mitigation Measure 4.4-1 before any further work commences in the affected area.



- MM 4.4-6 If human remains are discovered, no further disturbance shall occur in the affected area until the County Coroner has made necessary findings as to origin. If the County Coroner determines that the remains are potentially Native American, the California Native American Heritage Commission shall be notified within 24 hours of the published finding to be given a reasonable opportunity to identify the “most likely descendant”. The “most likely descendant” shall then make recommendations, and engage in consultations concerning the treatment of the remains (California Public Resources Code 5097.98).

4.4.8 SIGNIFICANCE OF IMPACTS AFTER MITIGATION

Threshold b: Less-than-Significant Impact with Mitigation. Implementation of Mitigation Measures (MMs) 4.4-1 through 4.4-6 would ensure the proper identification and subsequent treatment of any significant archaeological resources that may be encountered during ground-disturbing activities associated with Project construction. With implementation of the required mitigation, the Project’s potential impacts to important archaeological resources would be reduced to less-than-significant. Cumulatively-considerable impacts would likewise be reduced to less than significant.



4.5 ENERGY

The analysis in this Subsection is primarily based on two (2) reports prepared by Urban Crossroads, Inc. titled, 1) “Moreno Valley Trade Center Warehouse Energy Analysis,” dated January 7, 2021; and 2) “Moreno Valley Trade Center E-Commerce Energy Analysis,” dated January 7, 2021. The reports are included as *Technical Appendices E1 and E2*, respectively, to this EIR (Urban Crossroads, 2021b; Urban Crossroads, 2021c). Two additional analyses, 1) Moreno Valley Trade Center (Warehouse Scenario) Air Quality, Greenhouse Gas, & Health Risk Assessment Evaluation,” dated October 9, 2020; and 2) “Moreno Valley Trade Center (E-Commerce Scenario) Air Quality, Greenhouse Gas, & Health Risk Assessment Evaluation,” dated October 9, 2020, also are used in this analysis. These analyses are included as *Technical Appendices B5 and B6*, respectively, to this EIR (Urban Crossroads, 2020d; Urban Crossroads, 2020e). Refer to Section 7.0, *References*, for a complete list of all reference sources used in this Subsection.

4.5.1 EXISTING CONDITIONS

A. Electricity Consumption

The Project site is located within the service area of the Moreno Valley Electric Utility (MVU). MVU provides electricity to a population of more than 6,500 customers within their service area. MVU purchases from independent power producers and utilities, including out-of-state suppliers (Urban Crossroads, 2021b, p. 10; Urban Crossroads, 2021c, p. 14).

Under existing conditions, the Project site contains a plant nursery and three (3) residences that consume a nominal amount of electricity. Although the Project site contains land uses that consume electricity under existing conditions, for purposes of the analysis in this Subsection (and in order to present an analysis of the “worst-case” scenario) all electricity used by the Project is considered to represent a “new” demand and no deduction is taken for the removal of the existing uses on the Project site.

B. Natural Gas Consumption

The Project site is located within the service area of the Southern California Gas Company (SoCalGas), which is regulated by the California Public Utilities Commission (CPUC). The CPUC regulates natural gas utility service for approximately 10.8 million customers and oversees utility purchases and transmission of natural gas to ensure reliable and affordable natural gas deliveries to existing and new consumers throughout the State of California. Based on the most recent available public data, California customers receive 35% of their natural gas supply from basins located in the Southwest, 16% from Canada, 40% from the Rocky Mountains, and 9% from basins located within California (Urban Crossroads, 2021b, pp. 11-12; Urban Crossroads, 2021c, pp. 15-16).

Under existing conditions, the Project site contains a plant nursery and three (3) residences that consume a nominal amount of natural gas. Although the Project site contains land uses that consume natural gas under existing conditions, for purposes of the analysis in this Subsection (and in order to present an analysis of the “worst-case” scenario) all natural gas used by the Project is considered to represent a “new” demand and no deduction is taken for the removal of the existing uses on the Project site.



C. Transportation Energy/Fuel Consumption

Gasoline and other vehicle fuels are commercially-provided commodities. As of 2018, there were more than 27 million passenger and light truck vehicles and 8 million medium-duty and heavy-duty vehicles on the road in California (Urban Crossroads, 2021b, pp. 13-14; Urban Crossroads, 2021c, pp. 17-18). In 2018, California vehicles consumed nearly 15.1 billion gallons of gasoline (including ethanol) and 3.9 billion gallons of diesel fuel (including biodiesel and renewable diesel) (ibid.). In 2016, California vehicles also consumed 194 million therms of natural gas as a transportation fuel, or the equivalent of 155 million gallons of gasoline (ibid.).

Under existing conditions, the Project site contains a plant nursery and three (3) residences. A low amount of transportation fuel is assumed to be used by the residents of the site as well as during normal business operations of the plant nursery. Although the Project site contains land uses that consume transportation fuel, for purposes of the analysis in this Subsection (and in order to present an analysis of the “worst-case” scenario) all transportation-related fuel used by the Project is considered to represent a “new” demand and no deduction is taken for the removal of existing uses on the Project site that involve operation of vehicles that consume fuel.

4.5.2 REGULATORY SETTING

A. Federal Policies and Regulations

1. Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA)

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) promoted the development of intermodal transportation systems to maximize mobility as well as address national and local interests in air quality and energy (Urban Crossroads, 2021b, p. 16; Urban Crossroads, 2021c, p. 20). ISTEA contained factors that Metropolitan Planning Organizations (MPOs) were to address in developing transportation plans and programs, including some energy-related factors. To meet the new ISTEA requirements, MPOs adopted explicit policies defining the social, economic, energy, and environmental values guiding transportation decisions.

2. The Transportation Equity Act for the 21st Century (TEA-21)

The Transportation Equity Act for the 21st Century (TEA-21) was signed into law in 1998 and builds upon the initiatives established in the ISTEA legislation, discussed above. TEA-21 authorizes highway, highway safety, transit, and other efficient surface transportation programs (Urban Crossroads, 2021b, p. 16; Urban Crossroads, 2021c, p. 20). TEA-21 continues the program structure established for highways and transit under ISTEA, such as flexibility in the use of funds, emphasis on measures to improve the environment, and focus on a strong planning process as the foundation of wise transportation decisions. TEA-21 also provides for investment in research and its application to maximize the performance of the transportation system through, for example, deployment of Intelligent Transportation Systems, to help improve operations and management of transportation systems and vehicle safety.



B. State Policies and Regulations

1. Integrated Energy Policy Report

Senate Bill 1389 (Bowen, Chapter 568, Statutes of 2002) requires the California Energy Commission (CEC) to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing California's electricity, natural gas, and transportation fuel sectors and provides policy recommendations. The 2019 Integrated Energy Policy Report Update (2019 IEPR Update), focuses on next steps for transforming transportation energy use in California. The 2019 IEPR Update addresses the role of transportation in meeting state climate, air quality, and energy goals; the Alternative and Renewable Fuel and Vehicle Technology Program; current and potential funding mechanisms to advance transportation policy; the status of statewide plug-in electric vehicle infrastructure; challenges and opportunities for electric vehicle infrastructure deployment; measuring success and defining metrics within the Alternative and Renewable Fuel and Vehicle Technology Program; market transformation benefits resulting from Alternative and Renewable Fuel and Vehicle Technology Program investments; the state of hydrogen, zero-emission vehicle, biofuels, and natural gas technologies over the next ten years; transportation linkages with natural gas infrastructure; evaluation of methane emissions from the natural gas system and implications for the transportation system; changing trends in California's sources of crude oil; the increasing use of crude-by-rail in California; the integration of environmental information in renewable energy planning processes; an update on electricity reliability planning for Southern California energy infrastructure; and an update to the electricity demand forecast (Urban Crossroads, 2021b, p. 17; Urban Crossroads, 2021c, p. 21).

2. State of California Energy Plan

The CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The Plan calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs (Urban Crossroads, 2021b, p. 17; Urban Crossroads, 2021c, p. 21). To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators and encouragement of urban designs that reduce vehicle miles traveled and accommodate pedestrian and bicycle access (ibid.).

3. California Code Title 24, Part 6, Energy Efficiency Standards

California Code Title 24, Part 6 (also referred to as the California Energy Code), was promulgated by the CEC in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption. To these ends, the California Energy Code provides energy efficiency standards for residential and nonresidential buildings. According to the CEC, the Energy Commission's energy efficiency standards have saved Californians billions in reduced electricity bills since 1977 (Urban Crossroads, 2021b, pp. 17-18; Urban Crossroads, 2021c, pp. 21-22). The newest 2019 version of Title 24 was adopted by the CEC and became effective on January 1, 2020. The CEC indicates that the 2019 Title 24 standards will reduce energy consumption by 30 percent for nonresidential buildings above that achieved by the 2016 Title 24 (ibid.).



4. *California Solar Rights and Solar Shade Control Acts*

The Solar Rights Act sets parameters for establishing solar easements, prohibits ordinances and private covenants which restrict solar systems, and requires communities to consider passive solar and natural heating and cooling opportunities in new construction (CA Legislative Information, 1978). This Act is applicable to all California cities and counties. California’s solar access laws appear in the state’s Civil, Government, Health and Safety, and Public Resources Codes. California Pub Res Code § 25980 sets forth the Solar Shade Control Act, which encourages the use of trees and other natural shading except in cases where the shading may interfere with the use of active and passive solar systems.

5. *Pavley Fuel Efficient Standards (AB 1493)*

On September 24, 2009, the California Air Resources Board (CARB) adopted amendments to the “Pavley” regulations that reduce greenhouse gas (GHG) emissions in new passenger vehicles from 2009 through 2016 (CARB, 2020b). These amendments are part of California’s commitment toward a nation-wide program to reduce new passenger vehicle GHGs from 2012 through 2016 and cemented California’s enforcement of the Pavley rule starting in 2009, while providing vehicle manufacturers with new compliance flexibility. The amendments were also intended to prepare California to harmonize its rules with the federal rules for passenger vehicles.

The U.S. EPA granted California the authority to implement GHG emission reduction standards for new passenger cars, pickup trucks, and sport utility vehicles on June 30, 2009. The first California request to implement GHG standards for passenger vehicles, known as a waiver request, was made in December 2005, and was denied by the U.S. EPA in March 2008. That decision was based on a finding that California’s request to reduce GHG emissions from passenger vehicles did not meet the Clean Air Act requirement of showing that the waiver was needed to meet “compelling and extraordinary conditions.”

The CARB’s Board originally approved regulations to reduce GHGs from passenger vehicles in September 2004, with the regulations to take effect in 2009. These regulations were authorized by the 2002 legislation Assembly Bill 1493 (Pavley) (ibid.).

The regulations had been threatened by automaker lawsuits and were stalled by the U.S. EPA’s delay in reviewing and then initially denying California’s waiver request. The parties involved entered a May 19, 2009 agreement to resolve these issues. With the granting of the waiver on June 30, 2009, it was expected that the Pavley regulations will reduce GHG emissions from California passenger vehicles by about 22 percent in 2012 and about 30 percent in 2016, all while improving fuel efficiency and reducing motorists’ costs (ibid.).

The CARB has adopted a new approach to passenger vehicles – cars and light trucks – by combining the control of smog-causing pollutants and GHG emissions into a single coordinated package of standards. The new approach also includes efforts to support and accelerate the numbers of plug-in hybrids and zero-emission vehicles in California.



6. *Advanced Clean Cars Program*

In 2012, the California Air Resources Board (CARB) adopted a set of regulations to control emissions from passenger vehicle model years 2017 through 2025, collectively called Advanced Clean Cars. Advanced Clean Cars, developed in coordination with the United States Environmental Protection Agency (EPA) and National Highway Traffic Safety Administration (NHTSA), combined the control of smog-causing (criteria) pollutants and greenhouse gas (GHG) emissions into a single coordinated package of regulations: the Low-Emission Vehicle III Regulation for criteria (LEV III Criteria) and GHG (LEV III GHG) emissions, and a technology-forcing mandate for zero-emission vehicles (ZEV). The goal of the program is to guide the development of environmentally advanced cars that would continue to deliver the performance, utility, and safety car owners have come to expect. Advanced Clean Cars includes the following elements (CARB, 2020c):

- LEV III Criteria: Reducing Smog-Forming Pollution. CARB adopted new emission standards to reduce smog-forming emissions (also known as “criteria pollutants”) beginning with 2015 model year vehicles. The goal of this regulation is to have cars emit 75 percent less smog-forming pollution than the average car sold in 2012 by 2025.
- LEV III GHG: Reducing GHG Emissions. California’s GHG regulations are projected to reduce GHG emissions from new vehicles by approximately 40 percent (from 2012 model vehicles) in 2025.
- ZEV Regulation: Promoting the Cleanest Cars. The ZEV regulation is designed to achieve the State’s long-term emission reduction goals by requiring auto manufacturers to offer for sale specific numbers of the very cleanest cars available. These vehicle technologies include full battery-electric, hydrogen fuel cell, and plug-in hybrid-electric vehicles. Updated estimates using publicly available information show about 8 percent of California new vehicle sales in 2025 will be ZEVs and plug-in hybrids.

7. *Advanced Clean Trucks Program*

In June, 2020, CARB adopted a new Rule requiring truck manufacturers to transition from diesel trucks and vans to electric zero-emission trucks beginning in 2024 (CARB, 2020d). By 2045, every new truck sold in California will be required to be zero-emission (ibid.). Manufacturers who certify Class 2b-8 chassis or complete vehicles with combustion engines would be required to sell zero-emission trucks as an increasing percentage of their annual California sales from 2024 to 2035 (ibid.). By 2035, zero-emission truck/chassis sales would need to be 55% of Class 2b – 3 truck sales, 75% of Class 4 – 8 straight truck sales, and 40% of truck tractor sales (ibid.). CARB reports that as of 2020, most commercially-available models of zero-emission vans, trucks and buses operate less than 100 miles per day (ibid.). Commercial availability of electric-powered long-haul trucks is very limited (ibid.). However, as technology advances over the next 20 years, zero-emission trucks will become suitable for more applications, and several truck manufacturers have announced plans to introduce market ready zero-emission trucks in the future (ibid.). When commercial availability of electric-powered long-haul trucks is more readily available, implementation of the Advanced Clean Trucks Regulation is anticipated to significantly reduce GHG emissions and energy usage statewide.

8. *California Renewable Portfolio Standard (SB 1078 and SB 350)*

SB 1078 requires electricity retailers to increase the amount of energy obtained from eligible renewable energy resources to 20 percent by 2010 and 33 percent by 2020 (CPUC, 2020). Additionally, former Governor



Edmund G. Brown, Jr. signed into legislation Senate Bill 350 in October 2015, which requires retail sellers and publicly owned utilities to procure 50 percent of their electricity from eligible renewable energy resources by 2030 (ibid.). The California Energy Commission (CEC) and the CPUC work collaboratively to implement the RPS. The CPUC implements and administers Renewable Portfolio Standards (RPS) compliance rules for California's retail sellers of electricity, which include investor-owned utilities (IOU), public owned utilities (POUs), electric service providers (ESP) and community choice aggregators (CCA). The CEC is responsible for the certification of electrical generation facilities as eligible renewable energy resources, and adopting regulations for the enforcement of RPS procurement requirements of POUs. In 2017, California's three large IOUs (Pacific Gas and Electric, Southern California Edison, and San Diego Gas and Electric) collectively served 36% of their retail electricity sales with renewable power (ibid.). The IOU's utilize a mix of RPS resources such a wind, solar PV, solar thermal, hydroelectricity, geothermal, and bioenergy to meet their renewable procurement targets.

9. *Clean Energy and Pollution Reduction Act of 2015 (SB 350)*

In October 2015, the legislature approved, and the Governor signed SB 350, which reaffirms California's commitment to reducing its GHG emissions and addressing climate change. Key provisions include an increase in the renewables portfolio standard (RPS), higher energy efficiency requirements for buildings, initial strategies towards a regional electricity grid, and improved infrastructure for electric vehicle charging stations. Specifically, SB 350 requires the following to reduce statewide GHG emissions (CEC, 2020):

- Increase the amount of electricity procured from renewable energy sources from 33 percent to 50 percent by 2030, with interim targets of 40 percent by 2024, and 25 percent by 2027.
- Double the energy efficiency in existing buildings by 2030. This target will be achieved through the California Public Utility Commission (CPUC), the California Energy Commission (CEC), and local publicly owned utilities.
- Reorganize the Independent System Operator (ISO) to develop more regional electrify transmission markets and to improve accessibility in these markets, which will facilitate the growth of renewable energy markets in the western United States.

C. *Local Policies and Regulations*

1. *Moreno Valley Building Code*

The City of Moreno Valley adopted the California Building Standards Code (2019 Edition), including its Building Code, Energy Code, and Green Building Code (CalGreen) components, and codified in Title 8 of the Moreno Valley Municipal Code (Moreno Valley, n.d.). Accordingly, the City's Building Code regulates and controls the design, construction, quality of materials, grading, use, occupancy, location, and maintenance of all buildings or structures within the City.

4.5.3 METHODOLOGY FOR CALCULATING PROJECT ENERGY DEMANDS

Information from the CalEEMod 2016.3.2 outputs for *Technical Appendices B1 and B2* (Air Quality Impact Analyses) was utilized to detail Project-related construction equipment, transportation energy demands, and



facility energy demands. These outputs are referenced in Appendices 4.1 through 4.3 of *Technical Appendices E1 and E2*. Additionally, CARB’s EMFAC2017 model was used to calculate emission rates, fuel consumption, and vehicle miles traveled (VMT) for light duty vehicles, light-heavy duty trucks, medium-heavy duty trucks, and heavy-heavy duty trucks traveling to and from the Project site during construction and operational activities (Urban Crossroads, 2021b, p. 22; Urban Crossroads, 2021c, p. 26). Data from the EMFAC 2017 model outputs are included in Appendix 4.4 of *Technical Appendices E1 and E2*.

4.5.4 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant impact to energy if the Project or any Project-related component would:

- a. *Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation; or*
- b. *Conflict with or obstruct a State or local plan for renewable energy or energy efficiency.*

The above-listed thresholds are referenced in the *City of Moreno Valley Rules and Procedures for the Implementation of the California Environmental Quality Act* and address the typical, adverse environmental effects that could result from development projects’ energy consumption.

Regarding the determination of significance under Threshold “a,” if energy consumed by the Project’s construction and/or operation cannot be accommodated with existing available resources and energy delivery systems, and requires and/or consumes more energy than industrial uses in California of similar scale and intensity, the Project would result in wasteful, inefficient, or unnecessary consumption of energy.

4.5.5 IMPACT ANALYSIS

The analysis provided on the following pages addresses the potential energy-related impacts that could result from implementation of the proposed warehouse distribution/logistics facility and the conceptual fulfillment/e-commerce facility site plans described in EIR Section 3.0, *Project Description*. Except where specifically noted herein, implementation of the Project for either warehouse distribution/logistics or fulfillment/e-commerce uses would result in similar energy impacts.

Threshold a: *Would the Project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?*

Energy Use During Construction

Construction of the proposed Project and the optional site plan (see EIR Section 3.0, *Project Description*) would result in identical ground disturbances, utilize the same construction equipment fleet, and result in the same built improvements. Accordingly, the analysis below addresses potential construction-related effects from implementation of the Project for either warehouse distribution/logistics or fulfillment/e-commerce uses.



The Project's construction process would consume electrical energy and fuel. Project-related construction would represent a "single-event" electric energy and fuel demand and would not require on-going or permanent commitment of energy or diesel fuel resources for this purpose. Project-related construction is estimated to consume approximately 768,114 kilowatt hours (kWh) of electricity, approximately 100,368 gallons of diesel fuel from operation of construction equipment, 140,180 gallons of diesel fuel from construction vendor/hauling trips, and 209,081 gallons of fuel from construction worker trips (Urban Crossroads, 2021b, pp. 24-28; Urban Crossroads, 2021c, pp. 28-32). Refer to Subsection 4.3 from *Technical Appendices E1 and E2* for detailed calculations of all components of the Project's construction energy use.

The equipment used for Project construction would conform to CARB regulations and State emissions standards. There are no unusual Project characteristics or construction processes that would require the use of equipment that would be more energy intensive than is used for comparable activities elsewhere in the region; or equipment that would not conform to current emissions standards (and related fuel efficiencies). Additionally, Project construction activities would be required to comply with State law (Code of Regulations Title 13, Motor Vehicles, Section 2449(d)(3)) and CARB Air Toxic Control Measures that place restrictions on the length of time that diesel-powered equipment and vehicles can idle before powering down (thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling). Lastly, Project construction contractors would be required to comply with applicable CARB regulations regarding retrofitting, repowering, or replacement of older, less-efficient diesel off-road construction equipment. Accordingly, the equipment and vehicles employed in construction of the Project would not result in inefficient wasteful, or unnecessary consumption of fuel (Urban Crossroads, 2021b, p. 29; Urban Crossroads, 2021c, p. 33).

Indirectly, the Project would realize construction energy efficiencies and energy conservation through the bulk purchase, transport and use of construction materials. Use of materials in bulk reduces energy demands associated with preparation and transport of construction materials as well as the transport and disposal of construction waste and solid waste in general, with corollary reduced demands on area landfill capacities and energy consumed by waste transport and landfill operations (Urban Crossroads, 2021b, p. 29; Urban Crossroads, 2021c, p. 33).

As supported by the preceding discussion, the Project's construction energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

Energy Use During Project Operations

Project operations would include transportation energy demands (energy consumed by employee and patron vehicles accessing the Project site) and facility energy demands (energy consumed by building operations and site maintenance activities).

Under the scenario where the Project is operated as a warehouse distribution/logistics use, Project-related traffic is estimated to consume of 1,348,732 gallons of fuel and the Project building is estimated to consume 1,905,300 kilo-British thermal units (kBtu) of natural gas per year and 2,620,700 kWh of electricity per year (Urban Crossroads, 2021b, pp. 32-33). These energy consumption totals would rise to 1,395,481 gallons of fuel, 4,471,700 kWh of electricity, and 4,373,300 kBtu of natural gas per year in the event the warehouse distribution/logistics use utilizes cold storage (Urban Crossroads, 2020d, p. 9). Refer to Subsection 4.4 from



Technical Appendix E1 and Technical Appendix B5 for detailed calculations of all components of the Project’s operational energy use.

Under the scenario where the Project is operated as an e-commerce/fulfillment use, Project-related traffic is estimated to consume 2,698,021 gallons of fuel and the Project building is estimated to consume 1,905,300 kilo-British thermal units (kBtu) of natural gas per year and 2,823,560 kWh of electricity per year (Urban Crossroads, 2021c, pp. 36-37). These energy consumption totals would change to 2,695,350 gallons of fuel, 4,674,560 kWh of electricity, and 4,373,300 kBtu of natural gas per year in the event the fulfillment/e-commerce use utilizes cold storage (Urban Crossroads, 2020e, p. 9). Refer to Subsection 4.4 from *Technical Appendix E2 and Technical Appendix B6* for detailed calculations of all components of the Project’s operational energy use.

The proposed Project building incorporates contemporary, energy-efficient/energy-conserving design and operational programs (including the enhanced building/utility energy efficiencies mandated by the Energy Code and CalGreen. The Project will be subject to compliance with 2019 Energy Code and CalGreen standards, which became effective on January 1, 2020, and mandate energy conservation features that are more stringent (energy-conserving) than prior versions of the respective codes. On this basis, the Project will inherently use less energy than comparable buildings constructed under prior versions of the Energy and CalGreen codes. Project building operations would not result in the inefficient, wasteful, or unnecessary consumption of energy due to mandatory Energy Code and CalGreen compliance. Furthermore, the Project site is within the existing service areas of MVU and SoCalGas, is capable of being served by both energy providers, and implementation of the Project would not cause or result in the need for additional energy facilities or energy delivery systems. From a transportation energy perspective, the Project site’s location proximate to regional and local roadway systems would tend to minimize VMT within the region, acting to reduce regional vehicle energy demands. Furthermore, the Project does not propose uses or operations that would inherently result in excessive and wasteful vehicle trips and VMT, nor associated excess and wasteful vehicle energy consumption (Urban Crossroads, 2021b, p. 35; Urban Crossroads, 2021c, p. 39).

As supported by the preceding discussion, the Project’s operational energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

Threshold b: Would the Project conflict with or obstruct a State or local plan for renewable energy or energy efficiency?

The following section analyzes the Project’s consistency with the applicable federal, State, and local regulations for renewable energy or energy efficiency under both warehouse distribution/logistics or fulfillment/e-commerce uses.

Consistency with Federal Energy Regulations

Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA)

Transportation and access to the Project site is provided primarily by the local and regional roadway systems, which includes the SR-60 Freeway, Eucalyptus Avenue, and Redlands Boulevard. Implementation of the Project would not interfere with, nor otherwise obstruct intermodal transportation plans or projects that may



be realized pursuant to the ISTEA because SCAG is not planning for intermodal facilities on or through the Project site (Urban Crossroads, 2021b, p. 16; Urban Crossroads, 2021c, p. 20).

The Transportation Equity Act for the 21st Century (TEA-21)

The Project site is located along major transportation corridors with proximate access to the State’s freeway system (i.e., SR-60 Freeway). The location of the Project site facilitates access and is designed to minimize VMT, takes advantage of existing infrastructure systems, and promotes land use compatibilities through collocation of similar industrial uses. Accordingly, the Project supports the strong planning processes emphasized under TEA-21 and is therefore consistent with, and would not otherwise interfere with or obstruct implementation of TEA-21 (Urban Crossroads, 2021b, p. 16; Urban Crossroads, 2021c, p. 20).

☐ **Consistency with State Energy Regulations**

Integrated Energy Policy Report

The IEPR provides policy recommendations to be implemented by energy providers in California. Electricity would be provided to the Project by MVU and natural gas would be provided to the Project by SoCalGas. MVU and SoCalGas’ 2018 Corporate Sustainability Report builds on existing State programs and policies that support the IEPR goals of improving electricity, natural gas, and transportation fuel energy use in California. MVU and SoCalGas are consistent with, and would not otherwise interfere with, nor obstruct implementation of the goals presented in the 2019 IEPR. Thus, because the MVU and SoCalGas are consistent with the 2019 IEPR, the Project is consistent with, and would not otherwise interfere with, nor obstruct implementation of the goals presented in the 2019 IEPR (Urban Crossroads, 2021b, p. 17; Urban Crossroads, 2021c, p. 21).

State of California Energy Plan

The Project site is located along Eucalyptus Avenue and Redlands Boulevard with proximate access to the SR-60 Freeway. The location of the Project site facilitates access, is designed to minimize VMT, and takes advantage of existing infrastructure systems. Therefore, the Project supports urban design and planning processes identified under the State of California Energy Plan, is consistent with, and would not otherwise interfere with, nor obstruct implementation of the State of California Energy Plan (Urban Crossroads, 2021b, p. 17; Urban Crossroads, 2021c, p. 21).

California Code Title 24, Part 6, Energy Efficiency Standards

The Project would design the building shell and building components, such as windows; roof systems; electrical and lighting systems; and heating, ventilating, and air conditioning systems to meet 2019 Energy Efficiency Standards, which would be confirmed by the City of Moreno Valley during the building permit review process. The Project also is required by State law to be designed, constructed, and operated to meet or exceed 2019 Energy Efficiency Standards. On this basis, the Project is determined to be consistent with, and would not interfere with, nor otherwise obstruct implementation of the State’s 24 Energy Efficiency Standards (Urban Crossroads, 2021b, p. 18; Urban Crossroads, 2021c, p. 22).

Pavley Fuel Efficiency Standards (AB 1493)

AB 1493 is applicable to the Project because model year 2009-2016 passenger cars and light duty truck vehicles traveling to and from the Project site are required by law to comply with the legislation’s fuel



efficiency requirements. The Project would not interfere with, nor otherwise obstruct implementation of AB 1493.

Advanced Clean Cars Program

The CARB Advanced Clean Cars Program is applicable to the Project because model year 2007-2025 passenger cars and light duty truck vehicles traveling to and from the Project site are required by law to comply with the regulation’s emissions requirements. The Project would not interfere with, nor otherwise obstruct implementation of the Advanced Clean Cars Program.

Advanced Clean Trucks Program

The Advanced Clean Trucks Regulation is applicable to the Project because by 2045, every new heavy-duty truck sold in California will be required to be zero-emission and truck manufacturers are required to transition from diesel trucks and vans to electric zero-emission trucks beginning in 2024. These types of vehicles will travel to and from the Project site and in the future will be subject to the regulation’s emissions requirements. The Project would not interfere with, nor otherwise obstruct implementation of the Advanced Clean Trucks Regulation.

California Renewable Portfolio Standards (SB 1078)

Energy directly or indirectly supplied to the Project site by electric corporations is required by law to comply with SB 1078.

Clean Energy and Pollution Reduction Act of 2015 (SB 350)

Energy directly or indirectly supplied to the Project site by electric corporations is required by law to comply with SB 350 (Urban Crossroads, 2021b, p. 19; Urban Crossroads, 2021c, p. 23).

Consistency with Local Energy Regulations

Moreno Valley Building Code

The City of Moreno Valley will require the Project to be designed, constructed, and operated to meet or exceed all applicable components of the California Building Standards Code (which is adopted as the City’s Building Code pursuant to Section 8.20.010 of the Moreno Valley Municipal Code). The City would confirm the Project’s compliance with the Building Code as part of the building permit review process. On this basis, the Project is determined to be consistent with, and would not interfere with, nor otherwise obstruct implementation of the California Building Standards Code.

Conclusion

As supported by the preceding analysis, the Project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency and a less-than-significant impact would occur.

4.5.6 CUMULATIVE ANALYSIS

The Project and other new development projects within the cumulative study area would be required to comply with all of the same applicable federal, State, and local regulatory measures aimed at reducing fossil fuel consumption and the conservation of energy. Accordingly, the Project would not cause or contribute to a



significant cumulatively-considerable impact related to conflicts with a State or local plan for renewable energy or energy efficiency.

4.5.7 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold a: Less-than-Significant Impact. The amount of energy and fuel consumed by construction and operation of the Project would not be inefficient, wasteful, or unnecessary. Furthermore, the Project would not cause or result in the need for additional energy facilities or energy delivery systems.

Threshold b: Less-than-Significant Impact. The Project would not cause or result in the need for additional energy production or transmission facilities. The Project would not conflict with or obstruct the achievement of energy conservation goals within the State of California identified in State and local plans for renewable energy and energy efficiency.

4.5.8 MITIGATION

Impacts would be less than significant; therefore, mitigation is not required.



4.6 GEOLOGY AND SOILS

The analysis in this Subsection is based primarily on information contained in two (2) site-specific technical reports: 1) “Geotechnical Investigation Proposed Moreno Valley Trade Center,” dated November 5, 2019 and prepared by Southern California Geotechnical (hereinafter, “SCG”) (SCG, 2019); and 2) “Paleontological Resource Assessment for the Moreno Valley Trade Center Project,” dated November 12, 2019 and prepared by Rincon Consultants, Inc. (hereinafter, “Rincon”) (Rincon, 2019). These reports are provided as *Technical Appendices F and G*, respectively, to this EIR. Additional sources of information used to support the analysis in this Subsection include the Final Environmental Impact Report (EIR) prepared for the City of Moreno Valley General Plan (Moreno Valley, 2006b) and the Moreno Valley Municipal Code (Moreno Valley, 2018). Refer to Section 7.0, *References*, for a complete list of reference sources used in this analysis.

4.6.1 EXISTING CONDITIONS

A. Soils

One (1) type of soil condition (native alluvium) was encountered on the Project site during a soils and geotechnical investigation performed by SCG (SCG, 2019, p. 7). Native alluvial soils were encountered beneath the ground surface across the entire Project site, extending to the maximum depth explored during field surveys (approximately 50 feet below ground surface [bgs]) (ibid.). The alluvial soils generally consist of loose to medium dense fine sandy silts and silty fine sands with varying clay, medium to coarse sand and fine gravel content (ibid.). Some of the layers possessed loose to medium dense well graded sands and clayey sands and medium stiff to hard silty clay, clayey silt, and fine sand clay strata (ibid.). At depths greater than approximately 30 feet, occasional dense sands, silty sands, and clayey sands were encountered (ibid.).

B. Groundwater

SCG did not observe any free water at any subsurface testing location on the Project site (SCG, 2019, pp. 7-8). Based on the lack of water at subsurface testing locations and a review of available groundwater records, SCG concluded that the groundwater table beneath the Project site is located in excess of 50 feet below the existing ground surface (ibid.). According to data from monitoring wells located within 1,200 to 1,500 feet of the Project site, groundwater is estimated to occur between approximately 104 and 197 feet below the ground surface of the Project site (ibid.).

C. Seismic Hazards

The Project site is located in an area of southern California that is subject to strong ground motions due to seismic events (i.e., earthquakes). The geologic structure of southern California is dominated mainly by northwest-trending faults associated with the San Andreas system. The nearest active fault to the Project site is the Claremont Fault (which is part of the San Jacinto Fault Zone), located approximately 0.9-mile to the northeast of the Project site (Google Earth Pro, 2020; CGS, 2010). An active fault is defined by the California Geological Survey as a fault that has experienced surface displacement within the Holocene Epoch (roughly the last 11,000 years).

Secondary hazards associated with earthquakes include surface rupture, ground failure, unstable soils and slopes. Each of these hazards is briefly described below.



1. *Fault Rupture*

Fault rupture can occur along pre-existing, known active fault traces; however, fault rupture also can splay from known active faults or rupture along unidentified fault traces. There are no active or potentially active faults occurring on the Project site and no known faults are mapped trending through or toward the site (SCG, 2019, p. 11).

2. *Liquefaction*

Liquefaction is a phenomenon in which loose, saturated, relatively cohesion-less soil deposits lose shear strength during strong ground motions, which causes the soil to behave as a viscous liquid. Liquefaction is generally limited to the upper 50 feet of subsurface soils. Research and historical data indicate that loose granular soils of Holocene to late Pleistocene age below a near-surface groundwater table are most susceptible to liquefaction, while the stability of most clayey material is not adversely affected by vibratory motion (SCEC, 1999, pp. 5-6). Based on mapping conducted by the County of Riverside, the Project site is located within a zone of moderate liquefaction susceptibility. However, because of the lack of shallow groundwater at the site, the Project site is not considered conducive to liquefaction; therefore, the potential for liquefaction at the site is low (SCG, 2019, p. 13).

3. *Unstable Soils and Slopes*

The Project site is generally flat under existing conditions and does not contain, nor is it adjacent to any, steep natural or manufactured slopes and there is no evidence of historical landslides or rockfalls on the site (Google Earth Pro, 2020). As such, the site in its present condition is not susceptible to seismically-induced landslides and rockfalls.

D. Slope and Instability Hazards

1. *Soil Erosion*

Erosion is the process by which the upper layers of the ground surface (such as soils) are worn and removed by the movement of water or wind. Soils with characteristics such as low permeability and/or low cohesive strength are more susceptible to erosion than those soils having higher permeability and cohesive strength. Additionally, the slope gradient on which a given soil is located also contributes to the soil's resistance to erosive forces. Because water is able to flow faster down steeper gradients, the steeper the slope on which a given soil is located, the more readily it will erode. According to the City of Moreno Valley General Plan EIR, soils on the Project site and in the surrounding area are susceptible to erosion (Moreno Valley, 2006b, Figure 5.6-1, p. 5.6-3).

Wind erosion can damage land and natural vegetation by removing soil from one place and depositing it in another. It mostly affects dry, sandy soils in flat, bare areas, but wind erosion may occur wherever soil is loose, dry, and finely granulated. According to the United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS), soils on the Project site and in the surrounding area are moderately susceptible to wind erosion (USDA, n.d.). Under existing conditions, the Project site has the potential to contribute windblown soil and sand because portions of the Project site are undeveloped with little or no vegetative cover and loose and dry topsoil conditions.



2. *Settlement Potential*

Settlement refers to unequal compression of a soil foundation, shrinkage, or undue loads being applied to a building after its initial construction that affect the soil foundation. According to SCG, the alluvial soils present on the Project site have settlement potential (SCG, 2019, p. 14).

3. *Shrinkage/Subsidence Potential*

Subsidence is a gradual settling or sudden sinking of the ground surface (i.e., loss of elevation). The principal causes of subsidence are aquifer-system compaction, drainage of organic soils, underground mining, and natural compaction. Shrinkage is the reduction in volume in soil as the water content of the soil drops (i.e., loss of volume). Testing conducted by SCG on soils collected from the Project site indicates that the subsidence and shrinkage potential on the Project site is minimal (SCG, 2019, p. 14).

4. *Soil Expansion Potential*

Expansive soils are soils that exhibit cyclic shrink and swell patterns in response to variations in moisture content. On-site soils contain no appreciable clay content and SCG visually classified the soils as containing very low expansion potential (SCG, 2019, p. 14).

5. *Landslide Potential*

The Project site and immediately surrounding properties are generally flat and contain no steep natural or manufactured slopes (Google Earth Pro, 2020); thus, there is no potential for landslides to occur on or immediately adjacent to the site.

E. Paleontological Setting

1. *Regional Setting*

According to the City of Moreno Valley General Plan Final EIR, the City contains sedimentary rock units with potential to contain significant nonrenewable paleontological (fossil) resources (Moreno Valley, 2006b, p. 5.10-10). These sedimentary units are referred to as the Mt. Eden Formation and the San Timoteo Formation (ibid.). The Mt. Eden Formation is described as being primarily reddish sandstone and dark green and brown clay with local reddish fanglomerate and conglomerate (ibid.). Fossilized fauna within the Mt. Eden Formation include cricetine rodent, horse and proboscidean (extinct animals related to elephants) (ibid.). The San Timoteo Formation is a widespread deposit of sands, gravels, and clays that extends northward from the foothills of the San Jacinto Mountains for a distance of nearly 20 miles (ibid.). The San Timoteo Formation contains fossils of land animals and plant species, and represents sediments deposited from about 3.5 to 0.7 million years ago during late- Pleistocene to middle-Pleistocene time (ibid.).

2. *Project Site Conditions*

According to the Moreno Valley General Plan Final EIR, the Project site is located in an area that is characterized as having a low potential for containing important fossils because the area is covered with young alluvial soils (Moreno Valley, 2006b, pp. 5.10-11, 5.10-15). These young sediments overlie fossiliferous sedimentary units of the Mt. Eden Formation and the San Timoteo Formation; however, the Moreno Valley



General Plan Final EIR concluded that excavation to depths normal for development projects generally would not penetrate recent alluvial sediments to encounter fossiliferous deposits (ibid.). Areas within the City that are thought to have the greatest potential for encountering paleontological resources occur in the hills in the east end of the City, in an area known as the “Badlands” (ibid.). The Project site is not located in this portion of the City.

According to the site-specific paleontological assessment conducted by Rincon, the Project site is entirely underlain by Holocene alluvium, which is determined to have a low paleontological sensitivity (Rincon, 2019, p. 9). However, the Holocene sediments are underlain by Pleistocene older alluvium at a depth of at least 10 feet bgs, which contains a high paleontological sensitivity (ibid.).

Rincon reviewed records databases at the Natural History Museum of Los Angeles County (NHMLAC) and Western Science Center (WSC) to determine whether fossils have been recovered in proximity of the Project site or elsewhere in southern California from the same geologic units that underlie the Project site. None of these records searches revealed any previously recorded fossils on the Project site (Rincon, 2019, p. 9). The closest known fossil localities to the Project site were collected immediately north of the Project site (across Eucalyptus Avenue) (ibid.). The recovered fossils – terrestrial mammal remains, including ground sloth (*Megalonyx jeffersonii*), lamine camel (*Hemiauchenia* sp.) and horse (*Equus* sp.) – were found within same types of Holocene and late Pleistocene young alluvial fan deposits that are present on the Project site. Another fossil locality, which included a horse (*Equus* sp.), was collected southeast of the Project site in the San Jacinto Valley within same types of Holocene and Pleistocene older alluvial fan deposits that underlie the Project site (ibid.). The proximity of these fossil localities to the Project site suggests that the Project site is underlain with soils that contain a high paleontological sensitivity (ibid.).

4.6.2 REGULATORY SETTING

The following is a brief description of the federal, State, and local environmental laws and related regulations governing issues related to geology and soils.

A. Federal Plans, Policies, and Regulations

1. Clean Water Act

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters (EPA, 2019a). The basis of the CWA was enacted in 1948 and was called the Federal Water Pollution Control Act, but the Act was substantially reorganized and expanded in 1972. "Clean Water Act" became the Act's common name with amendments in 1972. Under the CWA, the Environmental Protection Agency (EPA) has implemented pollution control programs such as setting wastewater standards for industry, and also has set water quality standards for all contaminants in surface waters. The CWA made it unlawful to discharge any pollutant from a point source into navigable waters, unless a permit was obtained. EPA's National Pollutant Discharge Elimination System (NPDES) permit program controls discharges. Point sources are discrete conveyances such as pipes or man-made ditches. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters.



B. State Plans, Policies, and Regulations

1. Alquist-Priolo Earthquake Fault Zoning Act (A-P Act)

The Alquist-Priolo Earthquake Fault Zoning Act (A-P Act) was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. The A-P Act's main purpose is to prevent the construction of buildings used for human occupancy on the surface trace of active faults (CGS, 2019a). The A-P Act only addresses the hazard of surface fault rupture and is not directed toward other earthquake hazards.

The A-P Act requires the State Geologist to establish regulatory zones (known as Earthquake Fault Zones) around the surface traces of active faults and to issue appropriate maps (CGS, 2019a). ["Earthquake Fault Zones" were called "Special Studies Zones" prior to January 1, 1994.] The maps are distributed to all affected cities, counties, and state agencies for their use in planning and controlling new or renewed construction. Local agencies must regulate most development projects within the zones. Projects include all land divisions and most structures for human occupancy. Single family wood-frame and steel-frame dwellings up to two stories not part of a development of four units or more are exempt. However, local agencies can be more restrictive than State law requires.

Before a project can be permitted, cities and counties must require a geologic investigation to demonstrate that proposed buildings would not be constructed across active faults. An evaluation and written report of a specific site must be prepared by a licensed geologist. If an active fault is found, a structure for human occupancy cannot be placed over the trace of the fault and must be set back from the fault (generally 50 feet).

There are no active faults on the Project site and the Project site is not located within any Alquist-Priolo Earthquake Fault Zone (SCG, 2019, p. 11).

2. Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act (SHMA) of 1990 (Public Resources Code, Chapter 7.8, Section 2690-2699.6) directs the Department of Conservation, California Geological Survey to identify and map areas prone to liquefaction, earthquake-induced landslides, and amplified ground shaking. The purpose of the SHMA is to minimize loss of life and property through the identification, evaluation, and mitigation of seismic hazards (CGS, 2019b).

Staff geologists in the Seismic Hazard Zonation Program gather existing geological, geophysical, and geotechnical data from numerous sources to produce the Seismic Hazard Zone Maps. They integrate and interpret these data regionally in order to evaluate the severity of the seismic hazards and designate as Zones of Required Investigation (ZORI) those areas prone to liquefaction and earthquake-induced landslides. Cities and counties are then required to use the Seismic Hazard Zone Maps in their land use planning and building permit processes.

The SHMA requires site-specific geotechnical investigations be conducted within the ZORIs to identify and evaluate seismic hazards and formulate mitigation measures prior to permitting most developments designed for human occupancy. The Project site is not located within a ZORI.



3. *Natural Hazards Disclosure Act*

The Natural Hazards Disclosure Act, effective June 1, 1998 (as amended June 9, 1998), requires that sellers of real property and their agents provide prospective buyers with a "Natural Hazard Disclosure Statement" when the property being sold lies within one or more state-mapped hazard areas, including a Seismic Hazard Zone (CGS, 2019b).

The law requires the State Geologist to establish regulatory zones (Zones of Required Investigation) and to issue appropriate maps (Seismic Hazard Zone maps) (CGS, 2019b). These maps are distributed to all affected cities, counties, and state agencies for their use in planning and controlling construction and development. Single-family frame dwellings up to two stories not part of a development of four or more units are exempt from the state requirements. However, local agencies can be more restrictive than state law requires.

Before a development permit can be issued or a subdivision approved, cities and counties must require a site-specific investigation to determine whether a significant hazard exists at the site and, if so, recommend measures to reduce the risk to an acceptable level (CGS, 2019b). The investigation must be performed by state-licensed engineering geologists and/or civil engineers.

4. *Building Earthquake Safety Act*

In 1986, the California Legislature determined that buildings providing essential services should be capable of providing those services to the public after a disaster. Their intent in this regard was defined in legislation known as the Essential Services Buildings Seismic Safety Act of 1986 and includes requirements that such buildings shall be "...designed and constructed to minimize fire hazards and to resist...the forces generated by earthquakes, gravity, and winds." This enabling legislation can be found in the California Health and Safety Code, Chapter 2, Sections 16000 through 16022 (CAB, 2020). In addition, the California Building Code defines how the intent of the act is to be implemented in Title 24, Part 1 of the California Building Standards Administrative Code, Chapter 4, Articles 1 through 3 (ibid.).

5. *California Building Standards Code (Title 24)*

California Code of Regulations (CCR) Title 24 is reserved for state regulations that govern the design and construction of buildings, associated facilities, and equipment (CBSC, 2019, p. 6). These regulations are also known as building standards (reference California Health and Safety Code Section 18909). Health and Safety Code (state law) Section 18902 gives CCR Title 24 the name California Building Standards Code (CBSC).

The CBSC in CCR Title 24 is published by the California Building Standards Commission and it applies to all building occupancies (see Health and Safety Code Sections 18908 and 18938) throughout the State of California. Cities and counties are required by state law to enforce CCR Title 24 (reference Health and Safety Code Sections 17958, 17960, 18938(b), and 18948). Cities and counties may adopt ordinances making more restrictive requirements than provided by CCR Title 24, because of local climatic, geological, or topographical conditions. Such adoptions and a finding of need statement must be filed with the California Building Standards Commission (Reference Health and Safety Code Sections 17958.7 and 18941.5).



6. Porter-Cologne Water Control Act

The Porter-Cologne Act is the principal law governing water quality regulation in California (SWRCB, 2014). It establishes a comprehensive program to protect water quality and the beneficial uses of water. The Porter-Cologne Act applies to surface waters, wetlands, and ground water and to both point and nonpoint sources of pollution. Pursuant to the Porter-Cologne Act (California Water Code Section 13000 *et seq.*), the policy of the State is as follows:

- That the quality of all the waters of the State shall be protected;
- That all activities and factors affecting the quality of water shall be regulated to attain the highest water quality within reason; and
- That the State must be prepared to exercise its full power and jurisdiction to protect the quality of water in the State from degradation.

The Porter-Cologne Act established nine Regional Water Boards (based on hydrogeologic barriers) and the State Water Board, which are charged with implementing its provisions and which have primary responsibility for protecting water quality in California. The State Water Board provides program guidance and oversight, allocates funds, and reviews Regional Water Boards decisions. In addition, the State Water Board allocates rights to the use of surface water. The Regional Water Boards have primary responsibility for individual permitting, inspection, and enforcement actions within each of nine hydrologic regions. The State Water Board and Regional Water Boards have numerous non-point source (NPS) related responsibilities, including monitoring and assessment, planning, financial assistance, and management.

The Regional Water Boards regulate discharges under the Porter-Cologne Act primarily through issuance of NPDES permits for point source discharges and waste discharge requirements (WDRs) for NPS discharges. Anyone discharging or proposing to discharge materials that could affect water quality (other than to a community sanitary sewer system regulated by an NPDES permit) must file a report of waste discharge. The Storm Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCBs) can make their own investigations or may require dischargers to carry out water quality investigations and report on water quality issues. The Porter-Cologne Act provides several options for enforcing WDRs and other orders, including cease and desist orders, cleanup and abatement orders, administrative civil liability orders, civil court actions, and criminal prosecutions.

The Porter-Cologne Act also implements many provisions of the Clean Water Act, such as the NPDES permitting program. The Porter-Cologne Act also requires adoption of water quality control plans that contain the guiding policies of water pollution management in California. In addition, regional water quality control plans (basin plans) have been adopted by each of the Regional Water Boards and get updated as necessary and practical. These plans identify the existing and potential beneficial uses of waters of the State and establish water quality objectives to protect these uses. The basin plans also contain implementation, surveillance, and monitoring plans. (SWRCB, 2014) The Project site is located in the Santa Ana River Watershed, which is within the purview of the Santa Ana RWQCB. The Santa Ana's RWQCB's Santa Ana River Basin Water Quality Control Plan is the governing water quality plan for the region.



C. Local Plans, Policies, and Regulations

1. City of Moreno Valley General Plan

The Safety Element of the City of Moreno Valley General Plan provides information about natural and human-made hazards in Moreno Valley and establishes goals, objectives, and policies to prepare and protect the community from such risks. The Safety Element states that the City shall reduce the risk of geologic hazards to the community by enforcing building codes, requiring the preparation of soils and geologic reports, and using the most current and comprehensive geological hazard mapping available to assist in the evaluation of potential seismic hazards to proposed new development (Moreno Valley, 2006a, p. 9-30).

2. City of Moreno Valley Building Code

The City of Moreno Valley Building Code is based on the CBSC and is supplemented with local amendments (Moreno Valley, 2018). The Building Code regulates the construction, alteration, repair, moving, demolition, conversion, occupancy, use, and maintenance of all buildings and structures in the City of Moreno Valley. The Building Code is included in Chapter 8.20 of the City of Moreno Valley Municipal Code.

3. City of Moreno Valley Municipal Code

The City of Moreno Valley Municipal Code Chapter 8.21 requires development projects to prepare geologic engineering reports to identify site-specific geologic and seismic conditions and provide site-specific recommendations to preclude adverse impacts from unstable soils and strong seismic ground-shaking (refer to Section 8.21.050) (Moreno Valley, 2018). These reports shall recommend corrective action to preclude any structural damage/hazards that may be caused by geological hazards or unstable soils which the City will require to be incorporated into the project via conditions of approval. In addition, this chapter of the Municipal Code required the implementation of an erosion control plan during grading activities (refer to Section 8.21.160).

Moreno Valley Municipal Code Chapter 8.10 requires the City to participate in the improvement of water quality and comply with federal requirements for the control of urban pollutants, including sediment, in stormwater runoff (Moreno Valley, 2018).

4. SCAQMD Rule 403 (Fugitive Dust)

SCAQMD Rule 403 (Fugitive Dust) requires the implementation of best available dust control measures (BACMs) during active operations capable of generating fugitive dust (SCAQMD, 2005). The purpose of this Rule is to minimize the amount of particulate matter in the ambient air as a result of anthropogenic fugitive dust sources.



4.6.3 BASIS FOR DETERMINING SIGNIFICANCE

The Project would result in a significant impact related to geology and soils if the Project or any Project-related component would:

- a. *Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving:*
 - i. *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42;*
 - ii. *Strong seismic ground shaking;*
 - iii. *Seismic-related ground failure, including liquefaction; or*
 - iv. *Landslides.*
- b. *Result in substantial soil erosion or the loss of topsoil;*
- c. *Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse;*
- d. *Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property;*
- e. *Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water; or*
- f. *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.*

The above-listed thresholds are referenced in the *City of Moreno Valley Rules and Procedures for the Implementation of the California Environmental Quality Act* and address the typical, adverse effects related to geology and soils that could result from development projects.

4.6.4 IMPACT ANALYSIS

The proposed warehouse distribution/logistics facility and the conceptual fulfillment/e-commerce facility site plans described in EIR Section 3.0, *Project Description*, would result in identical ground-disturbing impacts. Thus, the analysis provided on the following pages addresses the potential impacts related to geology and soils that would result from implementation of the Project for either warehouse distribution/logistics or fulfillment/e-commerce uses.

Threshold a: *Would the Project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving:*

- i. *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based*



on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

- ii. Strong seismic ground shaking?*
- iii. Seismic-related ground failure, including liquefaction?*
- iv. Landslides?*

A. Rupture of Known Earthquake Fault

There are no known active or potentially active faults on or trending toward the Project site and the Project site is not located within a mapped Alquist-Priolo Earthquake Fault Zone (SCG, 2019, p. 11). Because there are no known faults located on or trending towards the Project site, the Project would not directly or indirectly expose people or structures to substantial adverse effects related to ground rupture.

B. Strong Seismic Ground Shaking

The Project site is located in a seismically active area of southern California and is expected to experience moderate to severe ground shaking during the lifetime of the Project. This risk is not considered substantially different than that of other similar properties in the southern California area. As a mandatory condition of Project approval, the Project Applicant would be required to construct the proposed building in accordance with the CBSC and the City of Moreno Valley Building Code, which is based on the CBSC with local amendments. The CBSC and City of Moreno Valley Building Code (Moreno Valley Municipal Code, Chapter 8.20) provide standards that must be met to safeguard life or limb, health, property, and public welfare by regulating and controlling the design, construction, quality of materials, use and occupancy, location, and maintenance of all buildings and structures, and have been specifically tailored for California earthquake conditions. In addition, the CBSC (Chapter 18) and the City of Moreno Valley Building Code (Chapter 8.21) require development projects to prepare geologic engineering reports to identify site-specific geologic and seismic conditions and implement the site-specific recommendations contained therein to preclude adverse effects involving unstable soils and strong seismic ground-shaking, including, but not limited to, recommendations related to ground stabilization, selection of appropriate foundation type and depths, selection of appropriate structural systems. The Project Applicant retained a professional geotechnical firm, SCG, to prepare a geotechnical report for the Project site, which is included as *Technical Appendix F* to this EIR. This geotechnical report complies with the requirements of Chapter 18 of the CBSC and Chapter 8.21 of the Moreno Valley Municipal Code. In conformance with the Municipal Code, the City will condition the Project to comply with the site-specific ground preparation and construction recommendations contained in *Technical Appendix F*. With mandatory compliance with building code standards and site-specific design and construction measures, implementation of the Project would not directly or indirectly expose people or structures to substantial adverse effects, including loss, injury or death, involving seismic ground shaking. Impacts would be less than significant.

C. Seismic-Related Ground Failure

Due to the observed soil characteristics on the Project site and the lack of shallow groundwater beneath the site, liquefaction potential is considered to be low (SCG, 2019, p. 13). Regardless, as noted above, the City of Moreno Valley will require the Project site be developed in accordance with the latest applicable seismic safety



guidelines, including the standard requirements of the CBSC and the City of Moreno Valley Municipal Code Building Code, to minimize potential liquefaction hazards. In addition, the Project would be required (via conditions of approval) to comply with the grading and construction recommendations contained within the geotechnical report for the Project site (see *Technical Appendix F*) to further reduce the risk of seismic-related ground failure due to liquefaction. Therefore, implementation of the Project would not directly or indirectly expose people or structures to substantial hazards associated with seismic-related ground failure and/or liquefaction hazards. Impacts would be less than significant.

D. Landslides

The Project site is relatively flat, as is the immediately surrounding area. There are no hillsides or steep slopes on the Project site or in the immediate vicinity of the site (Google Earth Pro, 2020). The Project Applicant proposes construction of several retaining walls on the Project site and manufactured slopes along the perimeter of the proposed water quality/detention basin. As required by Moreno Valley Municipal Code Chapter 8.21 the proposed retaining walls and manufactured slopes would be constructed in accordance with the site-specific recommendations contained within the geotechnical report for the Project site (see *Technical Appendix F*). Mandatory compliance with the recommendations contained within the Project site’s geotechnical report would ensure that the Project is engineered and constructed to maximize stability and preclude safety hazards to on-site and abutting off-site areas. Accordingly, the Project would not be exposed to substantial landslide risks, and implementation of the Project would not pose a substantial direct or indirect landslide risk to surrounding properties. Impacts would be less than significant.

Threshold b: Would the Project result in substantial soil erosion or the loss of topsoil?

A. Construction-Related Erosion Impacts

Under existing conditions, the Project site is heavily disturbed. Most of the Project site has no or little vegetative cover and contains loose and dry topsoil conditions (due to routine maintenance – discing – activities) and, thus, has the potential to contribute windblown soil and sand under existing conditions. Development of the Project would result in the demolition of all structures on-site, and grading and construction activities would occur that would further disturb soils on the property. Disturbed soils would be subject to potential erosion during rainfall events or high winds due to the removal of stabilizing vegetation and building materials (e.g., existing concrete foundations) and exposure of these erodible materials to wind and water.

Pursuant to the requirements of the State Water Resources Control Board, the Project Applicant would be required to obtain coverage under the State’s General Construction Storm Water Permit for construction activities (NPDES permit). The NPDES permit is required for all development projects that include construction activities, such as clearing, grading, and/or excavation, that disturb at least one (1) acre of total land area. In addition, the Project would be required to comply with the Santa Ana RWQCB’s *Santa Ana River Basin Water Quality Control Program*. Compliance with the NPDES permit and the *Santa Ana River Basin Water Quality Control Program* involves the preparation and implementation of a SWPPP for construction-related activities. The SWPPP will specify the Best Management Practices (BMPs) that the Project Applicant will be required to implement during construction activities to ensure that waterborne pollution – including erosion/sedimentation – is prevented, minimized, and/or otherwise appropriately treated



prior to surface runoff being discharged from the subject property. Examples of BMPs that may be utilized during construction include, but are not limited to, sandbag barriers, geotextiles, storm drain inlet protection, sediment traps, rip rap soil stabilizers, and hydro-seeding. Lastly, the Project would be required to implement an erosion control plan to minimize water- and windborne erosion pursuant to Moreno Valley Municipal Code Section 8.21.160 (and to ensure compliance with SCAQMD Rule 403). Mandatory compliance with the SWPPP and the erosion control plan would ensure that the Project’s implementation does not violate any water quality standards or waste discharge requirements during construction activities. Therefore, water quality impacts associated with construction activities would be less than significant and no mitigation measures would be required.

B. Post-Development Erosion Impacts

Upon Project build-out, the Project site would be covered by buildings, landscaping, and impervious surfaces. Stormwater runoff from the Project site would be captured, treated to reduce waterborne pollutants (including sediment), and conveyed off-site via an on-site storm drain system. Accordingly, the amount of erosion that occurs on the Project site would be minimized upon build out of the Project and would be reduced relative to existing conditions.

To meet the requirements of the City’s Municipal Storm Water Permit, and in accordance with Moreno Valley Municipal Code Section 8.10.050, the Project Applicant would be required to prepare and implement a Water Quality Management Plan (WQMP), which is a site-specific post-construction water quality management program designed to minimize the release of potential waterborne pollutants. The WQMP is required to identify an effective combination of erosion control and sediment control measures (i.e., Best Management Practices) to reduce or eliminate sediment discharge to surface water from storm water and non-storm water discharges. The WQMP also is required to establish a post-construction implementation and maintenance plan to ensure on-going, long-term erosion protection. Compliance with the WQMP will be required as a condition of approval for the Project, as will the long-term maintenance of erosion and sediment control features. The preliminary WQMP for the Project is provided as *Technical Appendix J2* to this EIR. Because the Project would be required to utilize erosion and sediment control measures to preclude substantial, long-term soil erosion and loss of topsoil, the Project would result in less-than-significant impacts related to soil erosion.

Threshold c: Would the Project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

The Project site is relatively flat, no substantial natural or man-made slopes are located on or adjacent to the Project site (Google Earth Pro, 2020). As noted in the response to Threshold “a,” the Project includes several retaining walls and manufacturd slopes. The retaining walls and manufactures slopes would be engineered for long-term stability and constructed in accordance with the site-specific recommendations contained within the geotechnical report for the Project site and included as *Technical Appendix F* to this EIR (as required by the City of Moreno Valley Municipal Code Section 8.21.050). Accordingly, the Project would result in less-than-significant impacts associated with landslide hazards.



SCG determined that removal and recompaction of the existing fill soils and near-surface alluvium would result in an average shrinkage of 6 to 11 percent (SCG, 2019, p. 14). However, the geotechnical report prepared for the Project site (*Technical Appendix F*) indicates that the site’s shrinkage/subsidence and settlement potential can be attenuated through the removal of surface and near surface soils down to competent materials and replacement with properly compacted fill (SCG, 2019, pp. 14-17). The City will condition the Project to comply with the site-specific ground preparation and construction recommendations contained in the Project site’s geotechnical report. Based on the foregoing, potential impacts related to soil shrinkage/subsidence and collapse would be less than significant.

Lateral spreading is primarily associated with liquefaction hazards. As noted above under the discussion of Threshold “a,” based on the Project site’s lack of shallow groundwater, liquefaction on the Project site is considered to be low. Thus, the potential for lateral spreading is low (SCG, 2019, p. 13). Accordingly, impacts associated with lateral spreading would be less than significant.

Threshold d: Would the Project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Based on expansion index testing of soil samples, SCG determined that near surface soils on the Project site have an expansion potential of “very low” (SCG, 2019, p. 14). Accordingly, the Project site does not contain expansive soils and as such, would not create substantial direct or indirect risks to life or property associated with the presence of expansive soils. No impacts would occur.

Threshold e: Would the Project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

The Project does not propose the use of septic tanks or alternative waste water disposal systems. Accordingly, no impact would occur.

Threshold f: Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

The Project site does not contain any known unique geologic features and no paleontological resources or sites were observed by Rincon during field investigations (Rincon, 2019, p. 9). Although the Project site is underlain with Holocene alluvium, which contains a low paleontological sensitivity, at shallow depths, the Project site is assumed to be underlain with Pleistocene older alluvial soils, which are known to contain fossils throughout the southern California region, at a depth of approximately 10 feet below ground surface (*ibid.*). Important fossil deposits were found immediately north of the Project site and southeast of the Project site within Pleistocene older alluvial soils; therefore, it is reasonable to conclude that the Pleistocene older alluvium soils on the Project have a high paleontological sensitivity (*ibid.*). In an event that the Project’s construction activities encroach into previously undisturbed Pleistocene older alluvium, the Project could result in impacts to important paleontological resources that may exist below the ground surface if they are unearthed and not properly treated (*ibid.*). Therefore, the Project’s potential to directly or indirectly destroy a unique



paleontological resource buried beneath the ground surface determined to be a significant impact and mitigation is required.

4.6.5 CUMULATIVE IMPACT ANALYSIS

With the exception of erosion hazards, potential hazardous effects related to geologic and soil conditions addressed under Thresholds “a,” “c,” “d,” and “e” are unique to the Project site, and inherently restricted to the specific property proposed for development. That is, issues including fault rupture, seismic ground shaking, liquefaction, landslides, and expansive soils would involve effects to (and not from) a proposed development project, are specific to conditions on the subject property, and are not influenced or exacerbated by the geologic and/or soils hazards that may occur on other, off-site properties. Because of the site-specific nature of these potential hazards and the measures to address them, there would be no direct or indirect connection to similar potential issues or cumulative effects to or from other properties.

As discussed under Threshold “b,” regulatory requirements mandate that the Project incorporate design measures during construction and long-term operation to ensure that significant erosion impacts do not occur. Other development projects in the vicinity of the Project site would be required to comply with the same regulatory requirements as the Project to preclude substantial adverse water and wind erosion impacts. Because the Project and other projects within the cumulative study area would be subject to similar mandatory regulatory requirements to control erosion hazards during construction and long-term operation, cumulative impacts associated with wind and water erosion hazards would be less than significant.

The Project’s potential to result in cumulative impacts to paleontological resources (Threshold “f”) is similar to that of other projects located in the region that are underlain by Pleistocene older alluvial soils. Because the Pleistocene older alluvial soils present on the Project site contain high paleontological sensitivity and because this geologic layer is present throughout the City of Moreno Valley and southern California, the potential to impact paleontological resources is a cumulatively-considerable impact for which mitigation is required.

4.6.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold a: Less-than-Significant Impact. Implementation of the Project would not expose people or structures to substantial direct or indirect adverse effects related to liquefaction or fault rupture. The Project site is subject to seismic ground shaking associated with earthquakes; however, mandatory compliance with local and State regulatory requirements and building codes would ensure that the Project minimizes potential hazards related to seismic ground shaking to less-than-significant levels.

Threshold b: Less-than-Significant Impact. Implementation of the Project would not result in substantial soil erosion or loss of topsoil. The Project Applicant would be required to obtain a National Pollutant Discharge Elimination System (NPDES) permit for construction activities and adhere to a Storm Water Pollution Prevention Plan (SWPPP), and prepare an erosion control plan to minimize water and wind erosion. Following completion of development, the Project’s owner or operator would be required by law to implement a Water Quality Management Plan (WQMP) during operation, which would preclude substantial erosion impacts in the long-term.



Threshold c: Less-than-Significant Impact. There is no potential for the Project's construction or operation to cause, or be impacted by, on- or off-site landslides or lateral spreading. Potential hazards associated with unstable soils would be precluded through mandatory adherence to the recommendations contained in the site-specific geotechnical report during Project construction.

Threshold d: No Impact. The Project site contains soils with no susceptibility to expansion; therefore, the Project would not create substantial direct or indirect risks to life or property associated with the presence of expansive soils. No impact would occur.

Threshold e: No Impact. No septic tanks or alternative wastewater disposal systems are proposed to be installed on the Project site. Accordingly, no impact would occur associated with soil compatibility for wastewater disposal systems.

Threshold f: Significant Direct and Cumulatively-Considerable Impact. The Project would not impact any known paleontological resource or unique geological feature. However, the Project site contains Pleistocene older alluvium soils with a high sensitivity for paleontological resources. Accordingly, construction activities on the Project site have the potential to unearth and adversely impact paleontological resource that may be buried beneath the ground surface.

4.6.7 MITIGATION

- MM 4.6-1 Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Moreno Valley that a qualified paleontologist has been retained by the Project Applicant to conduct monitoring of excavation activities and has the authority to halt and redirect earthmoving activities in the event that suspected paleontological resources are unearthed.
- MM 4.6-2 The paleontological monitor shall conduct full-time monitoring during grading and excavation operations in undisturbed, Pleistocene older alluvium soils at depths 10 or more feet below the existing ground surface and shall be equipped to salvage fossils if they are unearthed to avoid construction delays and to remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates. The paleontological monitor shall be empowered to temporarily halt or divert equipment to allow of removal of abundant and large specimens in a timely manner. Monitoring may be reduced if the potentially fossiliferous units are not present in the subsurface, or if present, are determined upon exposure and examination by paleontological personnel to have a low potential to contain or yield fossil resources.
- MM 4.6-3 Recovered specimens shall be properly prepared to a point of identification and permanent preservation, including screen washing sediments to recover small invertebrates and vertebrates, if necessary. Identification and curation of specimens into a professional, accredited public museum repository with a commitment to archival conservation and permanent retrievable storage, such as the Western Science Museum in Hemet, California, shall be required for discoveries of significance as determined by the paleontological monitor.



- MM 4.6-4 A final monitoring and mitigation report of findings and significance shall be prepared, including lists of all fossils recovered, if any, and necessary maps and graphics to accurately record the original location of the specimens. The report shall be submitted to the City of Moreno Valley prior to final building inspection.

4.6.8 SIGNIFICANCE OF IMPACTS AFTER MITIGATION

Threshold f: Less-than-Significant with Mitigation Incorporated. Mitigation Measures (MMs) 4.6-1 through 4.6-4 would ensure the proper identification and subsequent treatment of any paleontological resources that may be encountered during ground-disturbing activities associated with implementation of the proposed Project. Therefore, with implementation of MM 4.6-1 through MM 4.6-4, the Project's potential impact to paleontological resources would be reduced to less-than-significant.



4.7 GREENHOUSE GAS EMISSIONS

The analysis provided in this Subsection evaluates the Project’s potential to generate greenhouse gas (GHG) emissions that could contribute substantially to Global Climate Change (GCC) and its associated environmental effects. The analysis in this Subsection is based primarily on two reports prepared by Urban Crossroads, Inc. titled, 1) “Moreno Valley Trade Center Warehouse Greenhouse Gas Analysis,” dated January 7, 2021; and 2) “Moreno Valley Trade Center E-Commerce Greenhouse Gas Analysis,” dated January 7, 2021. The reports are included as *Technical Appendices H1 and H2*, respectively, to this EIR (Urban Crossroads, 2021d; Urban Crossroads, 2021e). Two additional analyses, 1) Moreno Valley Trade Center (Warehouse Scenario) Air Quality, Greenhouse Gas, & Health Risk Assessment Evaluation,” dated October 9, 2020; and 2) “Moreno Valley Trade Center (E-Commerce Scenario) Air Quality, Greenhouse Gas, & Health Risk Assessment Evaluation,” dated October 9, 2020, also are used in this analysis. These analyses are included as *Technical Appendices B5 and B6*, respectively, to this EIR (Urban Crossroads, 2020d; Urban Crossroads, 2020e).

4.7.1 EXISTING CONDITIONS

A. Introduction to Global Climate Change

GCC is defined as the change in average meteorological conditions on Earth with respect to temperature, precipitation, and storms. The majority of scientists believe that the climate shift taking place since the Industrial Revolution is occurring at a quicker rate and magnitude than in the past (Urban Crossroads, 2021d, p. 8; Urban Crossroads, 2021e, p. 8). Scientific evidence suggests that GCC is the result of increased concentrations of GHGs in planet Earth’s atmosphere, including carbon dioxide, methane, nitrous oxide, and fluorinated gases (ibid.).

An individual land development project is not capable of generating the magnitude of GHG emissions necessary to cause a discernible effect on global climate (Urban Crossroads, 2021d, p. 8; Urban Crossroads, 2021e, p. 8). However, individual development projects may contribute to GCC by generating GHGs that combine with other regional and global sources of GHGs (ibid.).

B. Greenhouse Gases

Carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O) emissions are the focus of evaluation in this Subsection because these gases are the primary contributors to GCC resulting from land development projects (Urban Crossroads, 2021d, pp. 8-9; Urban Crossroads, 2021e, pp. 8-9). Although other substances, such as fluorinated gases, also contribute to GCC, sources of fluorinated gases are not well-defined and no accepted emissions factors or methodology exist to accurately calculate the emissions of these gases (ibid.).

A global warming potential (GWP) value represents the effectiveness of a gas to trap heat in the atmosphere (Urban Crossroads, 2021d, p. 15; Urban Crossroads, 2021e, p. 15). Individual GHGs have varying GWP values, as assigned by the Intergovernmental Panel on Climate Change (IPCC). As shown in the Table 4.7-1, *GWP and Atmospheric Lifetime of Select GHGs*, GWP values range from 1 for CO₂ up to 23,900 for Sulfur Hexafluoride (SF₆). Carbon dioxide equivalent (CO₂e) is a term used for describing the different GHGs in a



common unit. CO₂e signifies the amount of CO₂ which would have the equivalent GWP (ibid.). The atmospheric lifetime and GWP of selected GHGs are summarized in Table 4.7-1.

Table 4.7-1 GWP and Atmospheric Lifetime of Select GHGs

Gas	Atmospheric Lifetime (years)	Global Warming Potential (100-year time horizon)	
		Second Assessment	5 th Assessment Report
CO ₂	See*	1	1
CH ₄	12.4	21	28
N ₂ O	121	310	265
HFC-23	222	11,700	12,400
HFC-134a	13.4	1,300	1,300
HFC-152a	1.5	140	138
SF ₆	3,200	23,900	23,500

*As per Appendix 8.A. of IPCC’s 5th Assessment Report, no single lifetime can be given.

Source: Table 2.14 of the IPCC Fourth Assessment Report, 2007

Source: (Urban Crossroads, 2021d, Table 2-2; Urban Crossroads, 2021e, Table 2-2)

Provided below is a description of the various gases that contribute to GCC. For more information about these gases and their associated human health effects, refer to Section 2.3 of *Technical Appendices H1 and H2* and the reference sources cited therein (Urban Crossroads, 2021d, pp. 9-13; Urban Crossroads, 2021e, pp. 9-13).

- **Water Vapor (H₂O)** is the most abundant and variable GHG in the atmosphere. Changes in the concentration of water vapor in the atmosphere are considered to be a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization. As the temperature of the atmosphere rises, more water is evaporated from ground storage (rivers, oceans, reservoirs, soil). Because the air is warmer, the relative humidity rises (in essence, the air is able to ‘hold’ more water when it is warmer), leading to more water vapor in the atmosphere. The higher concentration of water vapor in the atmosphere is then able to absorb more indirect thermal energy radiated from the Earth, further warming the atmosphere and causing the evaporation cycle to perpetuate. This is referred to as a “positive feedback loop.” The extent to which this positive feedback loop will continue is unknown as there are also dynamics that hold the positive feedback loop in check. As an example, when water vapor increases in the atmosphere, more of it will eventually also condense into clouds, which are able to reflect incoming solar radiation and thereby allow less energy to reach the Earth’s surface and heat it up. There are no human health effects from water vapor itself; however, certain pollutants can dissolve in water vapor and the water vapor can then act as a pollutant-carrying agent.
- **Carbon Dioxide (CO₂)** is an odorless and colorless GHG that is emitted from natural and man-made sources. Natural CO₂ sources include: the decomposition of dead organic matter; respiration of bacteria, plants, animals and fungus; evaporation from oceans; and volcanic outgassing. Man-made CO₂ sources include: the burning of coal, oil, natural gas, and wood. Since the industrial revolution began in the mid-1700s, human activities that produce CO₂ have increased dramatically. As an



example, prior to the industrial revolution, CO₂ concentrations in the atmosphere were fairly stable at 280 parts per million (ppm). Today, they are around 370 ppm, an increase of more than 30 percent. Exposure to CO₂ in high concentrations can cause adverse human health effects, but outdoor (atmospheric) levels are not high enough to be detrimental to human health.

- **Methane (CH₄)** absorbs thermal radiation extremely effectively (i.e., retains heat). Over the last 50 years, human activities such as rice cultivation, cattle ranching, natural gas combustion, and coal mining have increased the concentration of methane in the atmosphere. Other man-made sources include fossil-fuel combustion and biomass burning. No human health effects are known to occur from atmospheric exposure to methane; however, methane is an asphyxiant that may displace oxygen in enclosed spaces.
- **Nitrous Oxide (N₂O)** concentrations began to rise in the atmosphere at the beginning of the industrial revolution. N₂O can be transported into the stratosphere, be deposited on the Earth's surface, and be converted to other compounds by chemical reaction. N₂O is produced by microbial processes in soil and water, including reactions that occur in nitrogen-containing fertilizer. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. N₂O also is used as an aerosol spray propellant, as a preservative in potato chip bags, and in rocket engines and in race cars. Also, known as laughing gas, N₂O is a colorless GHG that can cause dizziness, euphoria, and hallucinations. In small doses, it is considered harmless; however, heavy and extended use can cause brain damage.
- **Chlorofluorocarbons (CFCs)** are gases formed synthetically by replacing all hydrogen atoms in CH₄ or ethane (C₂H₆) with chlorine and/or fluorine atoms. CFCs are non-toxic, non-flammable, insoluble and chemically unreactive in the troposphere (the level of air at the Earth's surface). CFCs were first synthesized in 1928 and have no natural source. CFCs were used for refrigerants, aerosol propellants and cleaning solvents. Due to the discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken and has been extremely successful, so much so that levels of CFCs are now remaining steady or declining. However, due to their long atmospheric lifetime, some of the CFCs will remain in the atmosphere for over 100 years.
- **Hydrofluorocarbons (HFCs)** are synthetic, man-made chemicals that are used as a substitute for CFCs and have one of the highest global warming potential ratings. The HFCs with the largest measured atmospheric abundances are (in order largest to smallest), HFC-23 (CHF₃), HFC-134a (CF₃CH₂F), and HFC-152a (CH₃CHF₂). No human health effects are known to result from exposure to HFCs, which are man-made and used for applications such as automobile air conditioners and refrigerants.
- **Perfluorocarbons (PFCs)** are primarily produced for aluminum production and semiconductor manufacture. PFCs have stable molecular structures and do not break down through chemical processes in the lower atmosphere. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane (CF₄) and hexafluoroethane (C₂F₆). No human health effects are known to result from exposure to PFCs.



- **Sulfur Hexafluoride (SF₆)** is an inorganic, odorless, colorless, nontoxic, nonflammable gas. Sulfur hexafluoride is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection. In high concentrations in confined areas, the gas presents the hazard of suffocation because it displaces the oxygen needed for breathing.

C. Greenhouse Gas Emissions Inventory

1. Global and National

Worldwide, man-made GHG emissions are tracked by the IPCC. Man-made GHG emissions data is available through 2017 for industrialized nations (referred to as Annex I). Based on the latest available data, total GHG emissions from Annex I nations were approximately 29,216,501 gigagrams (Gg) of carbon dioxide equivalent (CO₂e) (Urban Crossroads, 2021d, pp. 15-16; Urban Crossroads, 2021e, pp. 15-16). The United States is the world's second-largest emitter of GHGs, producing 6,456,718 Gg CO₂e in 2017 (ibid.).

2. State of California

Based on the most recent GHG inventory data compiled by the California Air Resources Board (CARB) and published in 2019, California emitted an average of approximately 424.1 million metric tons (MMT) CO₂e per year between 2000-2017 (Urban Crossroads, 2021d, p. 16; Urban Crossroads, 2021e, p. 16).

3. Project Site

Sources of GHG emissions on the Project site under existing conditions include commercial plant nursery operations (including suppliers, customers, visitors traveling to/from the site), residential activity from the three (3) occupied residences on-site (e.g., energy use, vehicular transportation to-and-from the site), and the operation of maintenance equipment associated with periodic weed abatement activities. Although the Project site produces GHG emissions under existing conditions, for purposes of analysis herein (and in order to present a “worst-case” scenario) the Project’s GHG analysis assumes all GHG emissions that would be generated by the Project are “new” emissions and no deduction is taken for the elimination of the existing land uses on the Project site that produce GHG emissions.

D. Potential Effects of Climate Change in California

In 2006, the California Climate Change Center (CCCC) published a report titled “Scenarios of Climate Change in California: An Overview” (the “Climate Scenarios report”) that is generally instructive about effects of climate change in California. The Climate Scenarios report used a range of emissions scenarios developed by the IPCC to project a series of potential warming ranges (i.e., temperature increases) that may occur in California during the 21st century: lower warming range (3.0-5.4°F); medium warming range (5.5-7.8°F); and higher warming range (8.0-10.4°F) (CCCC, 2006, p. 7).

In 2009, the California Natural Resources Agency adopted the “California Climate Adaptation Strategy,” which report details many vulnerabilities arising from climate change with respect to matters such as temperature extremes, sea level rise, wildfires, floods and droughts and precipitation changes, and responds to



the Governor's Executive Order (EO) S-13-2008 that called on state agencies to develop California's strategy to identify and prepare for expected climate impacts (CNRA, 2009, p. 4).

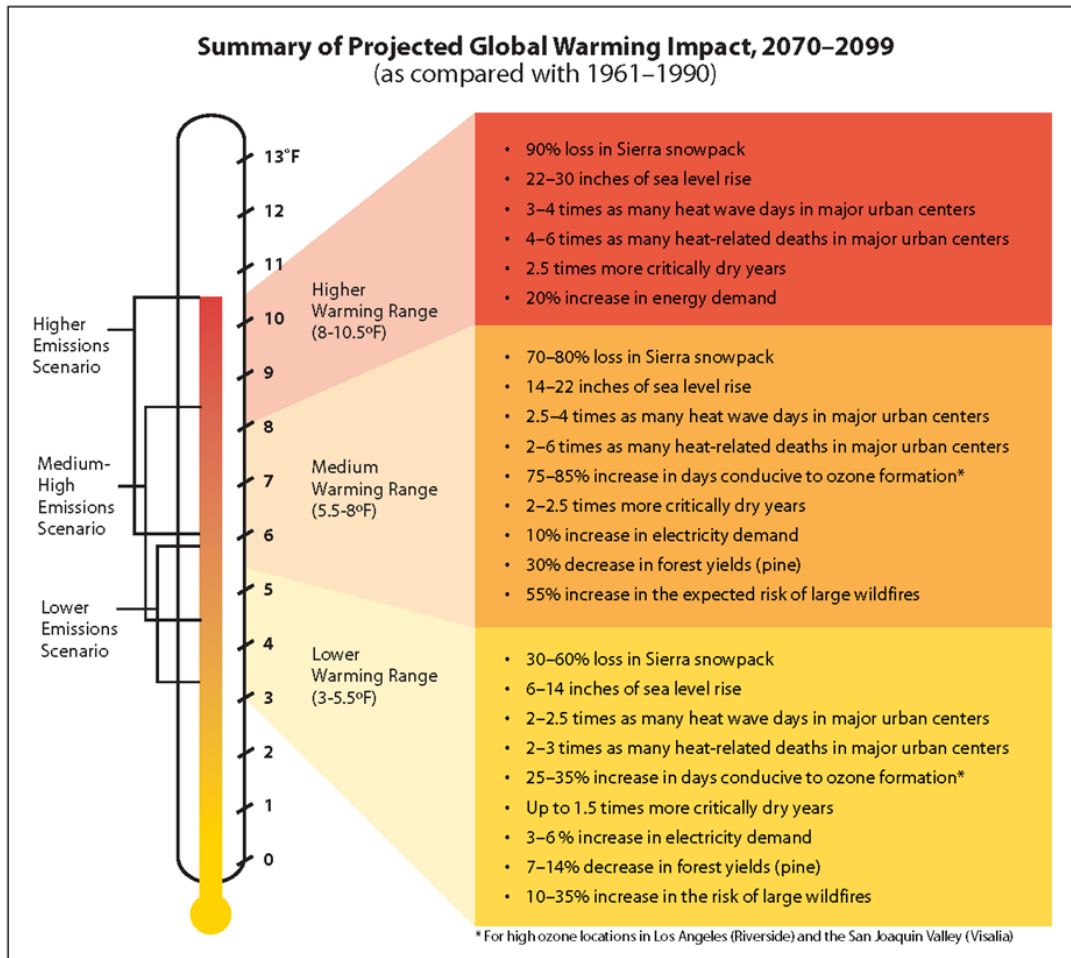
Based on the estimated scenarios presented in the Climate Scenario and California Climate Adaptation Strategy reports, Table 4.7-2, *Summary of Projected Global Warming Impact, 2070-2099*, presents potential impacts of global warming within California.

The potential effects of climate change in California are summarized below and include, but are not limited to, the following (CCCC, 2006, pp. 10, 14, 19, 22, 26):

- **Human Health Effects.** Climate change can affect the health of Californians by increasing the frequency, duration, and intensity of conditions conducive to air pollution formation, oppressive heat, and wildfires. The primary concern is not the change in average climate, but rather the projected increase in extreme conditions that are responsible for the most serious health consequences. In addition, climate change has the potential to influence asthma symptoms and the incidence of infectious disease.
- **Water Resource/Supply Effects.** Although most climate model simulations predict relatively moderate changes in precipitation over the 21st century, rising temperatures are expected to lead to diminishing snow accumulation in mountainous watersheds, including the Sierra Nevada. Warmer conditions during the last few decades across the western United States have already produced a shift toward more precipitation falling as rain instead of snow, and snowpacks over the region have been melting earlier in the spring. Delays in snow accumulation and earlier snowmelt can have cascading effects on water supplies, natural ecosystems, and winter recreation.
- **Agriculture Effects.** Agriculture, along with forestry, is the sector of the California economy that is most likely to be affected by a change in climate. California agriculture is a \$68 billion industry. California is the largest agricultural producer in the nation and accounts for 13% of all U.S. agricultural sales, including half of the nation's total fruits and vegetables. Regional analyses of climate trends over agricultural regions of California suggest that climate change is already affecting the agriculture industry. Over the period 1951 to 2000, the growing season has lengthened by about a day per decade, and warming temperatures resulted in an increase of 30 to 70 growing degree days per decade, with much of the increase occurring in the spring. Climate change affects agriculture directly through increasing temperatures and rising CO₂ concentrations, and indirectly through changes in water availability and pests.
- **Forest and Landscape Effects.** Climate changes and increased CO₂ concentrations are expected to alter the extent and character of forests and other ecosystems. The distribution of species is expected to shift; the risk of climate-related disturbance such as wildfires, disease, and drought is expected to rise; and forest productivity is projected to increase or decrease – depending on species and region. In California, these ecological changes could have measurable implications for both market (e.g., timber industry, fire suppression and damages costs, public health) and nonmarket (e.g., ecosystem services) values.



Table 4.7-2 Summary of Projected Global Warming Impact, 2070-2099



Source: (Urban Crossroads, 2021d, Exhibit 2-A; Urban Crossroads, 2021e, Exhibit 2-A)

- **Sea Level Effects.** Coastal observations and global model projections indicate that California’s open coast and estuaries will experience rising sea levels during the next century. Sea level rise already has affected much of the coast in southern California, Central California, and the San Francisco Bay and estuary. These historical trends, quantified from a small set of California tide gages, have approached 0.08 inches per year (in/yr), which are rates very similar to those estimated for global mean sea level. So far, there is little evidence that the rate of rise has accelerated, and indeed the rate of rise at California tide gages has actually flattened since about 1980. However, projections indicate that substantial sea level rise, even faster than the historical rates, could occur during the next century. Sea level rise projections range from 5.1–24.4 inches (in.) higher than the 2000 sea level for simulations under the lower emissions scenario, from 7.1–29.9 in. for the medium-high emission scenario, and from 8.5–35.2 in. for the higher emissions scenario.



4.7.2 REGULATORY SETTING

The following is a brief description of the federal, State, and local environmental laws and related regulations related to GHG emissions.

A. International Plans, Policies, and Regulations

1. Kyoto Protocol

The Kyoto Protocol is an international agreement linked to the United Nations Framework Convention on Climate Change, which commits its parties by setting internationally binding emission reduction targets. Recognizing that developed countries are principally responsible for the current high levels of GHG emissions in the atmosphere as a result of more than 150 years of industrial activity, the Protocol places a heavier burden on developed nations under the principle of "common but differentiated responsibilities."

The Kyoto Protocol was adopted in Kyoto, Japan, on December 11, 1997 and entered into force on February 16, 2005 (UNFCCC, 2020a). The detailed rules for the implementation of the Protocol were adopted at Conference of the Parties (COP) 7 in Marrakesh, Morocco, in 2001, and are referred to as the "Marrakesh Accords" (ibid.) Its first commitment period started in 2008 and ended in 2012.

In Doha, Qatar, on December 8, 2012, the "Doha Amendment to the Kyoto Protocol" was adopted. The amendment includes (ibid.):

- New commitments for Annex I Parties to the Kyoto Protocol who agreed to take on commitments in a second commitment period from January 1, 2013 to December 31, 2020;
- A revised list of greenhouse gases (GHG) to be reported on by Parties in the second commitment period; and
- Amendments to several articles of the Kyoto Protocol which specifically referenced issues pertaining to the first commitment period and which needed to be updated for the second commitment period.

On December 21, 2012, the amendment was circulated by the Secretary-General of the United Nations, acting in his capacity as Depositary, to all Parties to the Kyoto Protocol in accordance with Articles 20 and 21 of the Protocol (ibid.).

During the first commitment period, 37 industrialized countries and the European Community committed to reduce GHG emissions to an average of five percent against 1990 levels (ibid.). During the second commitment period, Parties committed to reduce GHG emissions by at least 18 percent below 1990 levels in the eight-year period from 2013 to 2020; however, the composition of Parties in the second commitment period is different from the first (ibid.).

2. The Paris Agreement

The Paris Agreement entered into force on November 4, 2016 (UNFCCC, 2020b). The Paris Agreement builds upon the Convention and – for the first time – brings all nations into a common cause to undertake ambitious



efforts to combat climate change and adapt to its effects, with enhanced support to assist developing countries to do so (ibid.). As such, it charts a new course in the global climate effort.

The Paris Agreement's central aim is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius (ibid.). Additionally, the agreement aims to strengthen the ability of countries to deal with the impacts of climate change (ibid.). To reach these ambitious goals, appropriate financial flows, a new technology framework and an enhanced capacity building framework will be put in place, thus supporting action by developing countries and the most vulnerable countries, in line with their own national objectives (ibid.). The Agreement also provides for enhanced transparency of action and support through a more robust transparency framework.

The Paris Agreement requires all Parties to put forward their best efforts through “nationally determined contributions” (NDCs) and to strengthen these efforts in the years ahead. This includes requirements that all Parties report regularly on their emissions and on their implementation efforts (ibid.).

On June 1, 2017, President Donald Trump announced he would begin the process of withdrawing the United States from the Paris Agreement. In accordance with articles within the Paris Agreement, the earliest effective date for the United States' withdrawal from the Agreement is November 4, 2020.

B. Federal Plans, Policies, and Regulations

1. Clean Air Act

Coinciding with the 2009 meeting of international leaders in Copenhagen, on December 7, 2009, the EPA issued an Endangerment Finding under Section 202(a) of the Clean Air Act (CAA), opening the door to federal regulation of GHGs. The Endangerment Finding notes that GHGs threaten public health and welfare and are subject to regulation under the CAA. To date, the EPA has not promulgated regulations on GHG emissions, but it has begun to develop them.

Previously the EPA had not regulated GHGs under the CAA because it asserted that the Act did not authorize it to issue mandatory regulations to address GCC and that such regulation would be unwise without an unequivocally established causal link between GHGs and the increase in global surface air temperatures. In *Massachusetts v. Environmental Protection Agency et al.* (127 S. Ct. 1438 [2007]); however, the U.S. Supreme Court held that GHGs are pollutants under the CAA and directed the EPA to decide whether the gases endangered public health or welfare. The EPA had also not moved aggressively to regulate GHGs because it expected Congress to make progress on GHG legislation, primarily from the standpoint of a cap-and-trade system. However, proposals circulated in both the House of Representative and Senate have been controversial and it may be some time before the U.S. Congress adopts major climate change legislation. The EPA's Endangerment Finding paves the way for federal regulation of GHGs with or without Congress.



C. State Plans, Policies, and Regulations

1. Title 24 Building Energy Standards

The California Energy Commission (CEC) first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Although not originally intended to reduce GHG emissions, increased energy efficiency, and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically to allow for the consideration and inclusion of new energy efficiency technologies and methods. The 2019 version of Title 24 was adopted by the California Energy Commission (CEC) and became effective on January 1, 2020. Thus, the analysis herein assumes compliance with the 2019 Title 24 Standards.

Part 11 of Title 24 is referred to as the California Green Building Standards Code (CalGreen Code). The purpose of the CalGreen Code is to “improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality.” The CalGreen Code is not intended to substitute or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission (CBSC). Unless otherwise noted in the regulation, all newly constructed buildings in California are subject of the requirements of the CalGreen Code.

2. California Assembly Bill No. 1493 (AB 1493)

AB 1493 required CARB to adopt the nation’s first GHG emission standards for automobiles. On September 24, 2009, CARB adopted amendments to the “Pavley” regulations that reduce GHG emissions in new passenger vehicles from model year 2009 through 2016. These amendments were part of California’s commitment toward a nation-wide program to reduce new passenger vehicle GHGs from 2012 through 2016. CARB’s September amendments cement California’s enforcement of the Pavley rule starting in 2009 while providing vehicle manufacturers with new compliance flexibility. The amendments also prepare California to harmonize its rules with the federal rules for passenger vehicles.

The U.S. EPA granted California the authority to implement GHG emission reduction standards for new passenger cars, pickup trucks, and sport utility vehicles On June 30, 2009. The first California request to implement GHG standards for passenger vehicles, known as a waiver request, was made in December 2005, and was denied by the EPA in March 2008. That decision was based on a finding that California’s request to reduce GHG emissions from passenger vehicles did not meet the CAA requirement of showing that the waiver was needed to meet “compelling and extraordinary conditions.”

CARB’s Board originally approved regulations to reduce GHGs from passenger vehicles in September 2004, with the regulations to take effect in 2009. These regulations were authorized by the 2002 legislation Assembly Bill 1493 (Pavley). The regulations had been threatened by automaker lawsuits and were stalled by the EPA’s delay in reviewing and then initially denying California’s waiver request. The parties involved entered a May



19, 2009 agreement to resolve these issues. With the granting of the waiver on June 30, 2009, it is expected that the Pavley regulations reduced GHG emissions from California passenger vehicles by about 22 percent in 2012 and about 30 percent in 2016, all while improving fuel efficiency and reducing motorists' costs (CARB, 2020b).

The CARB has adopted a new approach to passenger vehicles – cars and light trucks – by combining the control of smog-causing pollutants and greenhouse gas emissions into a single coordinated package of standards. The new approach also includes efforts to support and accelerate the numbers of plug-in hybrids and zero-emission vehicles in California.

3. *Executive Order S-3-05*

Executive Order (EO) S-3-05 documents GHG emission reduction goals, creates the Climate Action Team and directs the Secretary of the California EPA to coordinate efforts with meeting the GHG reduction targets with the heads of other state agencies. The EO requires the Secretary to report back to the Governor and Legislature biannually to report: progress toward meeting the GHG goals; GHG impacts to California; and applicable Mitigation and Adaptation Plans. EO S-3-05 goals for GHG emissions reductions include: reducing GHG emissions to 2000 levels by the year 2010; reducing GHG emissions to 1990 levels by the year 2020; and reducing GHG emissions to 80 percent below 1990 levels by 2050.

4. *California Assembly Bill 32 – Global Warming Solutions Act of 2006*

In September 2006, Governor Schwarzenegger signed Assembly Bill 32 (AB 32), the California Climate Solutions Act of 2006. AB 32 requires California to reduce its GHG emissions to 1990 levels by 2020, which represents a reduction of approximately 15 percent below emissions expected under a “business as usual” scenario. Pursuant to AB 32, the CARB must adopt regulations to achieve the maximum technologically feasible and cost-effective GHG emission reductions. The full implementation of AB 32 will help mitigate risks associated with climate change, while improving energy efficiency, expanding the use of renewable energy resources, cleaner transportation, and reducing waste.

AB 32 specifically requires that CARB shall do the following (CARB, 2019b):

- Prepare and approve a Scoping Plan for achieving the maximum technologically feasible and cost-effective reductions in GHG emissions from sources or categories of sources of GHGs by 2020, and update the Scoping Plan every five years.
- Maintain and continue reductions in emissions of GHG beyond 2020.
- Identify the statewide level of GHG emissions in 1990 to serve as the emissions limit to be achieved by 2020.
- Identify and adopt regulations for discrete early actions that could be enforceable on or before January 1, 2010.
- Adopt a regulation that establishes a system of market-based declining annual aggregate emission limits for sources or categories of sources that emit GHG emissions.
- Convene an Environmental Justice Advisory Committee to advise the Board in developing and updating the Scoping Plan and any other pertinent matter in implementing AB 32.



- Appoint an Economic and Technology Advancement Advisory Committee to provide recommendations for technologies, research, and GHG emission reduction measures.

In November 2007, CARB completed its estimated calculations of Statewide 1990 GHG levels. Net emission 1990 levels were estimated at 427 million metric tons (MMTs) (CARB, 2007). Accordingly, 427 million metric tons of carbon dioxide equivalent (MMT_{CO₂e}) was established as the emissions limit for 2020. For comparison, CARB's estimate for year 2000 GHG emissions was 473 MMT_{CO₂e} and, without emissions reduction measures, year 2010 emissions were projected to be 532 MMT_{CO₂e} (ibid.). "Business as usual" conditions (without the reductions to be implemented by CARB regulations) for 2020 were projected to be 596 MMT_{CO₂e} (ibid.).

AB 32 requires CARB to develop a Scoping Plan which lays out California's strategy for meeting the goals. The Scoping Plan must be updated every five years. In December 2008, the Board approved the initial Scoping Plan, which included a suite of measures to sharply cut GHG emissions. Table 4.7-3, *Scoping Plan GHG Reduction Measures Towards 2020 Target*, shows the proposed reductions from regulations and programs outlined in the Scoping Plan. While local government operations were not accounted for in achieving the Year 2020 emissions reduction, local land use changes are estimated to result in a reduction of 5 MMT_{CO₂e}, which is approximately 3 percent of the 2020 GHG emissions reduction goal (CARB, 2019b). In recognition of the critical role local governments will play in successful implementation of AB 32, CARB is recommending GHG reduction goals of 15 percent of 2006 levels by 2020 to ensure that municipal and community-wide emissions match the State's reduction target (ibid.). According to the Measure Documentation Supplement to the Scoping Plan, local government actions and targets are anticipated to reduce vehicle miles by approximately 2 percent through land use planning, resulting in a potential GHG reduction of 2 MMT_{CO₂e} (or approximately 1.2 percent of the GHG reduction target) (ibid.).

Overall, CARB determined that achieving the 1990 emission level in 2020 would require a reduction in GHG emissions of approximately 28.5 percent in the absence of new laws and regulations (referred to as "Business-As-Usual" [BAU]) (ibid.). The Scoping Plan evaluates opportunities for sector-specific reductions, integrates all CARB and Climate Action Team (CAT) early actions and additional GHG reduction measures, identifies additional measures to be pursued as regulations, and outlines the role of the cap-and-trade program (ibid.).

In May 2014, CARB approved the First Update to the Climate Change Scoping Plan (Update), which builds upon the initial Scoping Plan with new strategies and recommendations. The Update highlights California's progress toward meeting the near-term 2020 GHG emission reduction goals, highlights the latest climate change science and provides direction on how to achieve long-term emission reduction goal described in Executive Order S-3-05. The Update recalculates 1990 GHG emissions using new global warming potentials identified in the IPCC Fourth Assessment Report released in 2007. Using those GWPs, the 427 MMT_{CO₂e} 1990 emissions level and 2020 GHG emissions limit identified in the 2008 Scoping Plan would be slightly higher, at 431 MMT_{CO₂e} (ibid.). Based on the revised 2020 emissions level projection identified in the 2011 Final Supplement and the updated 1990 emissions levels identified in the discussion draft of the First Update, achieving the 1990 emissions level in 2020 would require a reduction of 78 MMT_{CO₂e} (down from 509 MMT_{CO₂e}), or approximately 15.3 percent (down from 28.5 percent), from the BAU condition (ibid.).



Table 4.7-3 Scoping Plan GHG Reduction Measures Towards 2020 Target

<i>Recommended Reduction Measures</i>	<i>Reductions Counted toward 2020 Target of 169 MMT CO₂e</i>	<i>Percentage of Statewide 2020 Target</i>
Cap and Trade Program and Associated Measures		
California Light-Duty Vehicle GHG Standards	31.7	19%
Energy Efficiency	26.3	16%
Renewable Portfolio Standard (33 percent by 2020)	21.3	13%
Low Carbon Fuel Standard	15	9%
Regional Transportation-Related GHG Targets ¹	5	3%
Vehicle Efficiency Measures	4.5	3%
Goods Movement	3.7	2%
Million Solar Roofs	2.1	1%
Medium/Heavy Duty Vehicles	1.4	1%
High Speed Rail	1.0	1%
Industrial Measures	0.3	0%
Additional Reduction Necessary to Achieve Cap	34.4	20%
Total Cap and Trade Program Reductions	146.7	87%
Uncapped Sources/Sectors Measures		
High Global Warming Potential Gas Measures	20.2	12%
Sustainable Forests	5	3%
Industrial Measures (for sources not covered under cap and trade program)	1.1	1%
Recycling and Waste (landfill methane capture)	1	1%
Total Uncapped Sources/Sectors Reductions	27.3	16%
Total Reductions Counted toward 2020 Target	174	100%
Other Recommended Measures – Not Counted toward 2020 Target		
State Government Operations	1.0 to 2.0	1%
Local Government Operations	To Be Determined ²	NA
Green Buildings	26	15%
Recycling and Waste	9	5%
Water Sector Measures	4.8	3%
Methane Capture at Large Dairies	1	1%
Total Other Recommended Measures – Not Counted toward 2020 Target	42.8	NA

Source: CARB. 2008, MMTons CO₂e: million metric tons of CO₂e

¹Reductions represent an estimate of what may be achieved from local land use changes. It is not the SB 375 regional target.

²According to the Measure Documentation Supplement to the Scoping Plan, local government actions and targets are anticipated to reduce vehicle miles by approximately 2 percent through land use planning, resulting in a potential GHG reduction of 2 million metric tons of CO₂e (or approximately 1.2 percent of the GHG reduction target). However, these reductions were not included in the Scoping Plan reductions to achieve the 2020 Target

In December 2017, CARB adopted the Second Update to the Scoping Plan, which identifies the State’s post-2020 reduction strategy. The Second Update reflects the 2030 target of a 40 percent GHG emissions reduction below 1990 levels set by SB 32. The Second Update builds upon the Cap- and-Trade Regulation; the Low Carbon Fuel Standard; much cleaner cars, trucks and freight movement; cleaner, renewable energy; and strategies to reduce methane emissions from agricultural and other wastes to reduce GHG emissions.

5. California Senate Bill No. 1368 (SB 1368)

In 2006, the State Legislature adopted Senate Bill (SB) 1368 (Perata, Chapter 598, Statutes of 2006), which directs the California Public Utilities Commission (CPUC) to adopt a GHG emission performance standard



(EPS) for the future power purchases of California utilities. SB 1368 seeks to limit carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than five years from resources that exceed specified emissions criteria (CEC, 2020). Accordingly, SB 1368 effectively prevents California's utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the State. SB 1368 will lead to dramatically lower GHG emissions associated with California energy demand (ibid.).

6. *Executive Order S-01-07*

Executive Order (EO) S-01-07 is effectively known as the Low Carbon Fuel Standard (LCFS). The Executive Order seeks to reduce the carbon intensity of California's passenger vehicle fuels by at least 10 percent by 2020 (Office of the Governor, 2008). The LCFS requires fuel providers in California to ensure that the mix of fuel they sell into the California market meet, on average, a declining standard for GHG emissions measured in CO₂e grams per unit of fuel energy sold.

7. *Senate Bill 1078*

Senate Bill (SB) 1078 establishes the California Renewables Portfolio Standard Program, which requires electric utilities and other entities under the jurisdiction of the California Public Utilities Commission to meet 20% of their renewable power by December 31, 2017 for the purposes of increasing the diversity, reliability, public health, and environmental benefits of the energy mix (CA Legislative Information, 2002).

8. *Senate Bill 107*

SB 107 directed California Public Utilities Commission's Renewable Energy Resources Program to increase the amount of renewable electricity (Renewable Portfolio Standard) generated per year, from 17% to an amount that equals at least 20% of the total electricity sold to retail customers in California per year by December 31, 2010 (CA Legislative Information, 2006).

9. *Executive Order S-14-08*

On November 17, 2008, former Governor Schwarzenegger signed Executive Order S-14-08, revising California's existing Renewable Portfolio Standard (RPS) upward to require all retail sellers of electricity to serve 33% of their load from renewable energy sources by 2020. In order to meet this new goal, a substantial increase in the development of wind, solar, geothermal, and other "RPS eligible" energy projects will be needed. Executive Order S-14-08 seeks to accelerate such development by streamlining the siting, permitting, and procurement processes for renewable energy generation facilities.

10. *Senate Bill 97*

By enacting SB 97 in 2007, California's lawmakers expressly recognized the need to analyze GHGs as a part of the CEQA process. SB 97 required the Governor's Office of Planning and Research (OPR) to develop, and the Natural Resources Agency to adopt, amendments to the CEQA Guidelines addressing the analysis and mitigation of greenhouse gas emissions. Those CEQA Guidelines amendments clarified several points, including the following (OPR, 2020):



- Lead agencies must analyze the GHG emissions of proposed projects, and must reach a conclusion regarding the significance of those emissions. (See CEQA Guidelines § 15064.4.)
- When a project's GHG emissions may be significant, lead agencies must consider a range of potential mitigation measures to reduce those emissions. (See CEQA Guidelines § 15126.4(c).)
- Lead agencies must analyze potentially significant impacts associated with placing projects in hazardous locations, including locations potentially affected by climate change. (See CEQA Guidelines § 15126.2(a).)
- Lead agencies may significantly streamline the analysis of GHGs on a project level by using a programmatic GHG emissions reduction plan meeting certain criteria. (See CEQA Guidelines § 15183.5(b).)
- CEQA mandates analysis of a proposed project's potential energy use (including transportation-related energy), sources of energy supply, and ways to reduce energy demand, including through the use of efficient transportation alternatives. (See CEQA Guidelines, Appendix F.)

The CEQA Guideline amendments do not identify a quantitative threshold of significance for GHG emissions, nor do they prescribe assessment methodologies or specific mitigation measures (*ibid.*). Instead, they call for a “good-faith effort, based on available information, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project” (*ibid.*) The amendments encourage lead agencies to consider many factors in performing a CEQA analysis and preserve lead agencies’ discretion to make their own determinations based upon substantial evidence. The amendments also encourage public agencies to make use of programmatic mitigation plans and programs from which to tier when they perform individual project analyses. The GHG analysis thresholds incorporated into the CEQA Guidelines’ Environmental Checklist (Guidelines Appendix G) are addressed in this EIR. The amendments to the CEQA Guidelines implementing SB 97 became effective on March 18, 2010.

11. *Senate Bill 375*

The Sustainable Communities and Climate Protection Act of 2008 (Sustainable Communities Act, SB 375, Chapter 728, Statutes of 2008) supports the State's climate action goals to reduce greenhouse gas (GHG) emissions through coordinated transportation and land use planning with the goal of more sustainable communities. Under the Sustainable Communities Act, CARB sets regional targets for GHG emissions reductions from passenger vehicle use (CARB, 2018). In 2010, CARB established these targets for 2020 and 2035 for each region covered by one of the State's metropolitan planning organizations (MPO) (*ibid.*). CARB will periodically review and update the targets, as needed.

Each of California’s MPOs must prepare a "sustainable communities strategy" (SCS) as an integral part of its regional transportation plan (RTP). The SCS contains land use, housing, and transportation strategies that, if implemented, would allow the region to meet its GHG emission reduction targets (*ibid.*). Once adopted by the MPO, the RTP/SCS guides the transportation policies and investments for the region. CARB must review the adopted SCS to confirm and accept the MPO's determination that the SCS would meet the regional GHG targets (*ibid.*). If the combination of measures in the SCS would not meet the regional targets, the MPO must



prepare a separate “alternative planning strategy” (APS) to meet the targets (ibid.). The APS is not a part of the RTP.

The Sustainable Communities Act also establishes incentives to encourage local governments and developers to implement the SCS or the APS. Developers can get relief from certain environmental review requirements under CEQA if their new residential and mixed-use projects are consistent with a region’s SCS (or APS) that meets the targets (see Cal. Public Resources Code §§ 21155, 21155.1, 21155.2, 21159.28.) (ibid.).

12. *Executive Order B-30-15 & Senate Bill 32*

On April 29, 2015, former Governor Brown issued Executive Order B-30-15, which sets a goal to reduce GHG emissions in California to 40 percent below 1990 levels by 2030. The 2030 target serves as a benchmark goal on the way to achieving the GHG reductions goal set by former Governor Schwarzenegger via Executive Order S-3-05 (i.e., 80 percent below 1990 GHG emissions levels by 2050).

On September 8, 2016, former Governor Jerry Brown signed the Senate Bill (SB) 32 and its companion bill, Assembly Bill (AB) 197. SB 32 requires the State to reduce statewide GHG emissions to 40% below 1990 levels by 2030, a reduction target that was first introduced in Executive Order B-30-15. The new legislation builds upon the AB 32 goal of 1990 levels by 2020 and provides an intermediate goal to achieving S-3-05, which sets a statewide greenhouse gas reduction target of 80% below 1990 levels by 2050.

D. Local Plans, Policies, and Regulations

1. City of Moreno Valley Climate Action Strategy

On October 9, 2012, the Moreno Valley City Council approved an Energy Efficiency and Climate Action Strategy and related GHG analysis. The Energy Efficiency and Climate Action Strategy document identifies potential programs and policies to reduce overall City energy consumption and increase the use of renewable energy (Moreno Valley, 2012). The majority of the policies are directed at municipal operations of the City, but the document also contains recommended policies for the community at large (including private development projects). These recommended policies include but are not limited to: energy efficiency, water use reduction, trip reduction, solid waste diversion, and educational policies (ibid.). The overall goal of the Energy Efficiency and Climate Action Strategy is to ensure that the City is consistent with and would not otherwise conflict with the provisions of AB 32 (ibid.).

2. City of Moreno Valley General Plan

The City of Moreno Valley General Plan does not identify specific GHG or climate change policies or goals; however, the Air Quality Element of the City’s General Plan contains a number of measures (i.e., Objective 6.6, Objective 6.7, Policy 6.7.5, and Policy 6.7.6) that reduces or controls criteria pollutant emissions and peripherally reduce GHG emissions.

4.7.3 METHODOLOGY FOR ESTIMATING GREENHOUSE GAS EMISSIONS

The California Emission Estimator Model (CalEEMod, v2016.3.2, released on October 17, 2017), developed by the California Air Pollution Control Officers Association (CAPCOA) in collaboration with the SCAQMD



and air pollution control districts across the State, was used to quantify GHG emissions from Project-related construction and operational activities. CalEEMod is the software analysis tool recommended by SCAQMD for the quantification of GHG emissions associated with the construction and operation of land development projects because it is the only software model maintained by CAPCOA and incorporates locally-approved emission factors and methodologies for estimating pollutant emissions. CalEEMod defaults for mobile source emissions have been revised to reflect the latest Emission Factor model (EMFAC) 2017 emission rates published by CARB (Urban Crossroads, 2021d, p. 45; Urban Crossroads, 2021e, p. 45). Inputs and outputs from the model runs for both Project-related construction and operational activities are provided in Appendices 3.1 through 3.3 of *Technical Appendix H1 and H2* and Appendices 3.1 through 3.3 of *Technical Appendices B1 and B2*.

Although CalEEMod is a comprehensive analysis tool, CalEEMod is limited to quantifying GHG emissions that are known as of the date of release of the model, there may be sources of GHG emissions that are not known (or not quantifiable) at this time but may be measurable by the time the Project is constructed and operational. Furthermore, CalEEMod relies on data published by the CARB and other data sources to be representative of local/regional averages which may not be completely representative of the Project's construction and/or operational characteristics (and may slightly underestimate or overestimate the Project's emissions). Lastly, not all the CalEEMod calculation data files are known or publicly available for review, although it is reasonable to assume that the data contained in CalEEMod is accurate and grounded in science because CalEEMod is developed by CAPCOA in collaboration with 35 local air pollution control districts.

A life-cycle analysis (LCA), which assesses economy-wide GHG emissions from construction (i.e., the processes in manufacturing and transporting all raw materials used in the project development and infrastructure) and operation, was not conducted for the Project due to the lack of scientific consensus on LCA methodology (Urban Crossroads, 2021d, p. 46; Urban Crossroads, 2021e, p. 46). A LCA depends on emission factors or econometric factors that are not well established for all processes as of the date the NOP for this EIR was published (ibid.). Additionally, SCAQMD recommends analyzing a project's direct and indirect GHG emissions generated within California in-lieu of an LCA because a project's life-cycle effects could extend beyond California and these effects might not be well understood or well documented and/or infeasible to mitigate (ibid.).

A. Methodology for Estimating Project-Related Construction Emissions

The Project's construction-related GHG emissions were calculated using the same methodology, construction schedule information, and equipment fleet information that were used to calculate construction-related criteria air pollutant emissions, and as previously described in detail in EIR Subsection 4.2, *Air Quality* (Urban Crossroads, 2021d, p. 47; Urban Crossroads, 2021e, p. 47). Refer to EIR Subsection 4.2 and *Technical Appendices B1 and B2* for a detailed description of the methodology used to calculate the Project's construction GHG emissions.

In accordance with the SCAQMD recommendations, the Project's construction-related GHG emissions were quantified, amortized over a 30-year period, and then added to the sum of the Project's annual operational GHG emissions (Urban Crossroads, 2021d, p. 48; Urban Crossroads, 2021e, p. 48).



B. Methodology for Estimating Project-Related Operational Emissions

The Project’s operational GHG emissions were calculated using the same methodology that was used to calculate operational criteria air pollutant emissions, and as previously described in detail in EIR Subsection 4.2, *Air Quality* (Urban Crossroads, 2021d, pp. 49-52; Urban Crossroads, 2021e, pp. 49-52). Refer to EIR Subsection 4.2 and *Technical Appendices B1 and B2* for a detailed description of the methodology used to calculate the Project’s operational GHG emissions.

4.7.4 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant impact to greenhouse gas emissions if the Project or any Project-related component would:

- a. *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or*
- b. *Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.*

The above-listed thresholds are referenced in the *City of Moreno Valley Rules and Procedures for the Implementation of the California Environmental Quality Act* and address and address a development project’s potential to result in significant impacts due to GHG emissions. Neither the CEQA Statute nor the CEQA Guidelines prescribe specific methodologies and significance criteria for determining the significance of GHG emissions impacts. The CEQA Guidelines emphasize the lead agency’s discretion to determine the appropriate thresholds consistent with the manner in which other impact categories are handled in CEQA. CEQA case law has upheld local agencies’ discretion to determine the significance of GHG emissions impacts.

As part of the November, 30, 2015, decision in *Center for Biological Diversity v. California Department of Fish and Wildlife* (“*Newhall Ranch*”), the California Supreme Court outlined four potential pathways that CEQA compliance documents could use to determine if GHG emissions from a specific project would be significant under Threshold “a”:

- Substantiation of Project Reductions from “Business as Usual” (BAU). A lead agency may use a BAU comparison based on the CARB Scoping Plan’s methodology if it also substantiates the reduction a particular project must achieve to comply with statewide goals. The Court suggested a lead agency could examine the “data behind the Scoping Plan’s business-as-usual model” to determine the necessary project level reductions from new land use development at the proposed location;
- Compliance with Regulatory Programs or Performance-based Standards. A lead agency “might assess consistency with AB 32’s goal in whole or part by looking to compliance with regulatory programs designed to reduce greenhouse gas emissions from particular activities”;
- Compliance with GHG Reduction Plans or Climate Action Plans (CAPs). A lead agency may utilize “geographically specific GHG emission reduction plans” such as climate action plans or greenhouse gas emission reduction plans to provide a basis for the tiering or streamlining of project-level CEQA analysis; or



- Compliance with Local Air District Thresholds. A lead agency may rely on “existing numerical thresholds of significance for greenhouse gas emissions” adopted by, for example, local air districts.

The City of Moreno Valley does not have an adopted threshold of significance for GHG emissions; however, based on the foregoing guidance from the California Supreme Court, the City of Moreno Valley has elected to rely on compliance with a local air district threshold in the determination of significance of Project-related GHG emissions. Specifically, the City has selected the SCAQMD’s adopted GHG emissions threshold for industrial projects for which SCAQMD is the lead agency (i.e., 10,000 MTCO_{2e} per year) against which to evaluate Project-related GHG emissions. The SCAQMD-adopted industrial threshold was selected by the City because the Project is analogous to an industrial use much more closely than any other land use type, such as commercial or residential, in terms of its expected operating characteristics. Also, the industrial threshold adopted by SCAQMD is a widely accepted threshold used by numerous lead agencies in the South Coast Air Basin (SCAB) and was established based on the recommendations from California Air Pollution Control Officers Association CAPCOA contained in a report titled “CEQA and Climate Change” (dated January 2008), which serves as a resource for public agencies as they establish agency procedures for reviewing GHG emissions from projects under CEQA. The CAPCOA report provides three recommendations for evaluating a development project’s GHG emissions. When establishing their significance threshold, SCAQMD selected the CAPCOA non-zero approach which establishes a numerical threshold based on capture of approximately 90 percent of emissions from future development (Approach 2, Threshold 2.5) (CAPCOA, 2008, pp. 46-47; SCAQMD, 2008). A 90 percent emission capture rate means that 90 percent of total emissions from all new or modified projects would be subject to evaluation under CEQA. Based on SCAQMD’s research of 1,297 major, industrial source point (i.e., stationary) emission sources in the SCAB, SCAQMD found that source point industrial facilities that generate at least 10,000 MTCO_{2e} per year produce approximately 90 percent of the carbon dioxide equivalent emissions in the SCAB per year (SCAQMD, 2008). As such, SCAQMD established their significance criterion at 10,000 MTCO_{2e} as that threshold would capture 90 percent of total emissions from future industrial development in accordance with CAPCOA recommendations.

Based on the foregoing, if Project-related GHG emissions do not exceed the 10,000 MTCO_{2e} per year threshold, then Project-related GHG emissions would have a less-than-significant impact pursuant to Threshold “a.” On the other hand, if Project-related GHG emissions exceed 10,000 MTCO_{2e} per year, the Project-related GHG emissions would be deemed a significant impact. To ensure that this analysis is conservative in its application, the 10,000 MTCO_{2e} threshold used in this analysis is applied to all sources of Project-related GHG emissions whether stationary source, mobile source, area source, or other whereas SCAQMD originally intended for this threshold to apply only to stationary source emissions for industrial projects.

4.7.5 IMPACT ANALYSIS

The analysis provided on the following pages addresses the potential impacts from GHG emissions that could result from implementation of the proposed warehouse distribution/logistics facility and the conceptual fulfillment/e-commerce facility site plans described in EIR Section 3.0, *Project Description*. Except where specifically noted herein, implementation of the Project for either warehouse distribution/logistics or fulfillment/e-commerce uses would result in similar impacts from GHG emissions.



Threshold a: *Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*

Table 4.7-4 through Table 4.7-7 summarize annual Project-related GHG emissions under both potential user scenarios. As shown, implementation of the Project would exceed the significance threshold of 10,000 MTCO_{2e} per year for both the warehouse distribution/logistics and e-commerce/fulfillment uses (and under both the with and without cold storage scenarios) and, thus, are determined to constitute to a significant impact.

Table 4.7-4 Project Annual GHG Emissions – Warehouse Distribution/Logistics (Without Cold Storage)

Emission Source	Emissions (MT/yr)			
	CO ₂	CH ₄	N ₂ O	Total CO _{2e}
Annual construction-related emissions amortized over 30 years	163.50	0.01	0.00	163.87
Area Source	0.09	2.30E-03	0.00	0.09
Energy Source	936.69	0.04	0.01	940.28
Mobile Source (Passenger Car)	1,882.56	0.04	0.00	1,883.59
Mobile Source (Truck)	10,758.03	0.12	0.00	10,761.00
On-Site Equipment	253.96	0.08	0.00	256.01
Waste	254.23	15.02	0.00	629.85
Water Usage	1,376.04	10.09	0.25	1,702.25
Total CO_{2e} (All Sources)	16,336.94			

Source: CalEEMod output; See Appendices 3.1 through 3.3 of *Technical Appendix H1* for detailed model outputs.
Source: (Urban Crossroads, 2021d, Table 3-6)

Table 4.7-5 Project Annual GHG Emissions – Warehouse Distribution/Logistics (With Cold Storage)

Emission Source	Emissions (MT/yr)			
	CO ₂	CH ₄	N ₂ O	Total CO _{2e}
Annual construction-related emissions amortized over 30 years	163.50	0.01	0.00	163.87
Area Source	0.09	2.30E-03	0.00	0.09
Energy Source	1,658.16	0.06	0.02	1,664.64
Mobile Source (Passenger Car)	1,920.98	0.04	0.00	1,922.03
Mobile Source (Truck)	11,209.04	0.18	0.00	11,213.55
On-Site Equipment	253.96	0.08	0.00	256.01
Waste	254.23	15.02	0.00	629.85
Water Usage	1,376.04	10.09	0.25	1,702.25
Total CO_{2e} (All Sources)	17,552.30			

Source: CalEEMod output; See *Technical Appendix B5* for detailed model outputs.
Source: (Urban Crossroads, 2020d, Table 8)



Table 4.7-6 Project Annual GHG Emissions – E-Commerce/Fulfillment (Without Cold Storage)

Emission Source	Emissions (MT/yr)			
	CO ₂	CH ₄	N ₂ O	Total CO ₂ e
Annual construction-related emissions amortized over 30 years	163.50	0.01	0.00	163.87
Area Source	0.11	2.90E-04	0.00	0.12
Energy Source	1,001.32	0.04	0.01	1,005.14
Mobile Source (Passenger Car)	10,304.70	0.23	0.00	10,310.34
Mobile Source (Truck)	14,137.99	0.16	0.00	14,141.98
On-Site Equipment	253.96	0.08	0.00	256.01
Waste	254.23	15.02	0.00	629.85
Water Usage	1,376.04	10.09	0.25	1,702.25
Total CO₂e (All Sources)	28,209.57			

Source: CalEEMod output; See Appendices 3.1 through 3.3 of *Technical Appendix H2* for detailed model outputs.

Source: (Urban Crossroads, 2021e, Table 3-6)

Table 4.7-7 Project Annual GHG Emissions – E-Commerce/Fulfillment (With Cold Storage)

Emission Source	Emissions (MT/yr)			
	CO ₂	CH ₄	N ₂ O	Total CO ₂ e
Annual construction-related emissions amortized over 30 years	163.50	0.01	0.00	163.87
Area Source	0.11	2.90E-04	0.00	0.12
Energy Source	1,722.09	0.07	0.02	1,729.51
Mobile Source (Passenger Car)	10,033.96	0.22	0.00	10,039.43
Mobile Source (Truck)	14,479.25	0.24	0.00	14,485.23
On-Site Equipment	253.96	0.08	0.00	256.01
Waste	254.23	15.02	0.00	629.85
Water Usage	1,376.04	10.09	0.25	1,702.25
Total CO₂e (All Sources)	29,006.27			

Source: CalEEMod output; See *Technical Appendix B6* for detailed model outputs.

Source: (Urban Crossroads, 2020e, Table 8)

Threshold b: *Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

The Project would not conflict with applicable regulations, policies, plans, and policy goals that would reduce GHG emissions, including the City of Moreno Valley Energy Efficiency and Climate Action Strategy, the City of Moreno Valley General Plan’s Air Quality Element, Title 24 California Building Standards Code (CBSC), Assembly Bill 32 (AB 32), and Senate Bill 32 (SB 32), which are regulations particularly applicable to the Project.



On October 9, 2012, the Moreno Valley City Council approved an Energy Efficiency and Climate Action Strategy and related GHG analysis. The Energy Efficiency and Climate Action Strategy document identifies potential programs and policies to reduce overall City energy consumption and increase the use of renewable energy. The majority of the policies are directed at municipal operations of the City, but the document also contains recommended policies for the community at large (including private development projects). These recommended policies include but are not limited to: energy efficiency, water use reduction, trip reduction, solid waste diversion, and educational policies. The overall goal of the Energy Efficiency and Climate Action Strategy is to ensure that the City is consistent with and would not otherwise conflict with the provisions of AB 32. Refer to Table 3-9 of *Technical Appendices H1 and H2* for a more detailed analysis of the Project's consistency with the policies in the City's Energy Efficiency and Climate Action Strategy under both the warehouse distribution/logistics and e-commerce/fulfillment options. Furthermore, as demonstrated by the analysis below, neither potential use for the Project would conflict with the provisions of AB 32 and, therefore, would not obstruct implementation of the components of the City's Energy Efficiency and Climate Action Strategy that are applicable to the Project.

The City of Moreno Valley's General Plan does not identify specific GHG or climate change policies or goals; however, the City's General Plan Air Quality Element contains measures that act to reduce or control criteria pollutant emissions and peripherally reduce GHG emissions. Refer to Table 3-8 of *Technical Appendices H1 and H2* for a point-by-point analysis of the Project's consistency with the applicable measures in the City's General Plan Air Quality Element under both the warehouse distribution/logistics and e-commerce/fulfillment options. As summarized therein, neither implementation of the Project for warehouse distribution/logistics use nor e-commerce/fulfillment use would conflict with the applicable measures of the City's General Plan Air Quality Element.

The Project would include contemporary, energy-efficient/energy-conserving design features and operational procedures. Warehouse distribution/logistics and e-commerce/fulfillment uses are not inherently energy-intensive. The Project's total energy demands would be comparable to, or less than, other goods movement projects of similar scale and configuration due to the Project's modern construction and requirement to be constructed in accordance with the most recent CBSC (Urban Crossroads, 2021d, p. 59; Urban Crossroads, 2021e, p. 59). The CBSC includes the California Energy Code, or Title 24, Part 6 of the California Code of Regulations, also titled "The Energy Efficiency Standards for Residential and Nonresidential Buildings." The California Energy Code was established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated approximately every three years to improve energy efficiency by allowing incorporating new energy efficiency technologies and methods (the next update will take effect on January 1, 2023). The Project Applicant would be required to comply with all applicable provisions of the CBSC in effect at the time of Project construction. As such, the Project's energy demands would be minimized through design features and operational programs that, in aggregate, would ensure that Project energy efficiencies would comply with – or exceed – incumbent CBSC energy efficiency requirements, thereby minimizing GHG emissions produced during from energy consumption. The Project would be consistent with the mandatory regulations of the CBSC under both the warehouse distribution/logistics and e-commerce/fulfillment options.



In April 2015, former Governor Edmund Brown Jr. signed EO B-30-15, which advocated for a statewide GHG-reduction target of 40 percent below year 1990 levels by 2030 and 80 percent below 1990 levels by 2050. In September 2016, former Governor Brown signed the Senate Bill (SB) 32. SB 32 formally established a statewide goal to reduce GHG emissions to 40 percent below year 1990 levels by 2030. To date, no statutes or regulations have been adopted to translate the year 2050 GHG reduction goal into comparable, scientifically-based statewide emission reduction targets. CARB prepared the 2017 Scoping Plan Update to identify the measures that would achieve the emissions reductions goals of SB 32 (and, thus, also would achieve the emissions reductions goals of AB 32). Research conducted by the Lawrence Berkeley National Laboratory confirmed that California, under its existing GHG reduction policy framework (i.e., Scoping Plan Update), is on track to meet the years 2020 and 2030 reduction targets established by AB 32 and SB 32, respectively (Urban Crossroads, 2021d, pp. 27, 30-31; Urban Crossroads, 2021e, pp. 27, 30-31). As explained in point-by-point detail in Table 3-7 of *Technical Appendices H1 and H2*, the Project would not conflict with applicable measures of the 2017 Scoping Plan Update under either the warehouse distribution/logistics or e-commerce/fulfillment options and, therefore, would not interfere with the State's ability to achieve the year GHG-reduction targets established by AB 32 and SB 32 (ibid.).

Rendering a significance determination for year 2050 GHG emissions relative to EO B-30-15 would be speculative because EO B-30-15 establishes a goal more than three decades into the future; no agency with GHG subject matter expertise has adopted regulations to achieve these statewide goals at the project-level; and, available analytical models cannot presently quantify all project-related emissions in those future years. Further, due to the technological shifts anticipated and the unknown parameters of the regulatory framework in 2050, available GHG models and the corresponding technical analyses are subject to limitations for purposes of quantitatively estimating the Project's emissions in 2050.

As described on the preceding pages, implementation of the Project for either warehouse distribution/logistics or e-commerce/fulfillment uses would not conflict with the State's ability to achieve the State-wide GHG reduction mandates and would be consistent with applicable policies and plans related to GHG emissions reductions. Implementation of the Project for warehouse distribution/logistics or e-commerce/fulfillment uses would not actively interfere with any future federally-, State-, or locally-mandated retrofit obligations (such as requirements to use new technologies such as diesel particulate filters, emissions upgrades to a higher tier equipment, etc.) enacted or promulgated to legally require development projects to assist in meeting State-adopted GHG emissions reduction targets, including those established under Executive Order S-3-05, Executive Order B-30-15, or SB 32. Therefore, use of the Project for warehouse distribution/logistics or e-commerce/fulfillment uses would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs and would result in a less-than-significant impact.

4.7.6 CUMULATIVE IMPACT ANALYSIS

GCC occurs as the result of global emissions of GHGs. An individual development project does not have the potential to result in direct and significant GCC-related effects in the absence of cumulative sources of GHGs. The CEQA Guidelines emphasize that the effects of GHG emissions are cumulative and should be analyzed in the context of CEQA's requirements for cumulative impacts analysis (See CEQA Guidelines Section 15130[f]). Accordingly, the analysis provided in Subsection 4.7.5 reflects a cumulative impact analysis of the effects related to the Project's GHG emissions, which concludes that the Project would not conflict with an



applicable GHG-reduction plans, policies, or regulations but would generate cumulatively-considerable GHG emissions that may have a significant impact on the environment because the Project would exceed the SCAQMD's GHG emissions threshold of 10,000 MTCO_{2e} per year under both the warehouse distribution/logistics and e-commerce/fulfillment options.

4.7.7 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold a: Significant Cumulatively-Considerable Impact. Operation of the Project as a warehouse distribution/logistics use is calculated to generate between approximately 16,336.94 MTCO_{2e} and 17,552.30 MTCO_{2e} per year. Operation of the Project as an e-commerce/fulfillment use is calculated to generate between approximately 28,209.57 MTCO_{2e} and 29,006.27 MTCO_{2e} per year. Both of these user options for the Project would exceed the SCAQMD significance threshold of 10,000 MTCO_{2e} per year. As such, the Project would generate substantial, cumulatively-considerable GHG emissions that may have a significant impact on the environment.

Threshold b: Less-than-Significant Impact. The Project would be consistent with or otherwise would not conflict with, applicable regulations, policies, plans, and policy goals that would further reduce GHG emissions.

4.7.8 MITIGATION

Refer to Mitigation Measures MM 4.2-5 through MM 4.2-11 in EIR Subsection 4.2, *Air Quality*, which would minimize the Project's GHG emissions in conjunction with reducing the Project's criteria air pollutant emissions.

4.7.9 SIGNIFICANCE OF IMPACTS AFTER MITIGATION

Threshold a: Significant Unavoidable Cumulatively-Considerable Impact. The application of MM 4.2-5 through MM 4.2-11 in EIR Subsection 4.2 would reduce Project-related GHG emissions; however, these measures would not substantially reduce Project mobile source emissions (i.e., emissions from construction equipment, passenger cars and trucks), which comprise more than 78 percent (for the warehouse distribution/logistics option) or more than 87 percent (for the e-commerce/fulfillment option) of all Project-related GHG emissions. Mobile source GHG emissions are regulated by State and federal fuel standards and tailpipe emissions standards, and are outside of the control and authority of the City of Moreno Valley, the Project Applicant, and future Project occupants. CEQA Guidelines Section 15091 provides that mitigation measures must be within the responsibility and jurisdiction of the Lead Agency (i.e., City of Moreno Valley) in order to be implemented. No other mitigation measures are available that are feasible for the City of Moreno Valley to enforce that have a proportional nexus to the Project's level of impact. Accordingly, the City of Moreno Valley finds that the Project's GHG emissions under both the warehouse distribution/logistics and e-commerce/fulfillment options are a significant and unavoidable cumulatively-considerable impact for which no feasible mitigation is available.



4.8 HAZARDS AND HAZARDOUS MATERIALS

The information and analysis presented in this Subsection is based in part on a technical study that was prepared to determine the presence or absence of hazardous materials on the Project site under existing conditions. The report titled “Phase I Environmental Site Assessment APNs 488-340-002 through -012, Southwest Corner of Redlands Boulevard and Eucalyptus Avenue, Moreno Valley, California,” prepared by LOR Geotechnical Group, Inc. (hereinafter “LOR”), and dated March 1, 2019 (LOR, 2019). This report is provided as EIR *Technical Appendix I*. This Subsection also relies on information from the City of Moreno Valley General Plan (Moreno Valley, 2006a); the City of Moreno Valley General Plan EIR (Moreno Valley, 2006b); Cal Fire – Fire Hazard Severity Zone Map (Cal Fire, 2007); and Google Earth Pro (Google Earth Pro, 2020). Refer to Section 7.0, *References*, for a complete list of reference sources used in this analysis.

In this EIR the term “toxic substance” is defined as a substance that, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may present an unreasonable risk of injury to human health or the environment. Toxic substances include chemical, biological, flammable, explosive, and radioactive substances.

In this EIR the term “hazardous material” is defined as a substance that, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may: 1) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, disposed of, or otherwise mismanaged; or 2) cause or contribute to an increase in mortality or an increase in irreversible or incapacitating illness.

Hazardous waste is defined in the California Code of Regulations, Title 22, Section 66261.3. The defining characteristics of hazardous waste are: ignitability (oxidizers, compressed gases, and extremely flammable liquids and solids), corrosivity (strong acids and bases), reactivity (explosives or generates toxic fumes when exposed to air or water), and toxicity (materials listed by the United States Environmental Protection Agency (USEPA) as capable of inducing systemic damage to humans or animals). Certain wastes are called “Listed Wastes” and are found in the California Code of Regulations, Title 22, Sections 66261.30 through 66261.35. Wastes appear on the lists because of their known hazardous nature or because the processes that generate them are known to produce hazardous wastes (which are often complex mixtures).

4.8.1 EXISTING CONDITIONS

Under existing conditions, the Project site is vacant and undeveloped, except for an approximately 8.5-acre commercial plant nursery (Adam Hall’s Plant Nursery) with associated structures (i.e., an office building, an ancillary garage), three (3) residential buildings with associated garages and storage sheds, and one (1) swimming pool/hot tub located at the southeast corner of the Project site. All three (3) of the residential buildings on the Adam Hall’s Plant Nursery site are occupied under existing conditions. A natural meandering dirt channel (Quincy Channel) is located along the western Project site boundary.



A. Historical Review, Regulatory Records Review, and Field Reconnaissance

1. Historical Review

LOR reviewed various sources of information to determine the historical use of the Project site, including three environmental site assessments (ESAs) prepared for the Project site in 2016, a preliminary environmental assessment (PEA) prepared for the Project site in 2007, historical aerial photographs, historical topographic maps, Environmental Data Resources (EDR) collection of regulatory database records, city directories, historical site occupants, and historical site ownership records. Refer to *Technical Appendix I* of this EIR for a more detailed description of LOR's research results.

The eastern half of the Project site consisted of agricultural land (citrus groves) with residential and/or support structures from at least 1938 to 1953 (LOR, 2019, pp. 14-17, 20). The remainder of the site was vacant/dry farmland (ibid.). In 1961, the Project site began to be cleared of citrus groves, a horse ranch and associated structures were constructed in the northeast corner of the site, and four (4) above ground storage tanks (ASTs) appeared on the northeast portion of the Project site (ibid.). By 1985, citrus groves were no longer present on the Project site (ibid.). In 1989, a plant nursery with associated structures had been established in the southeast corner of the Project site (ibid.). In 2006, the residence located in the northeast corner of the site on APN 488-340-004 (28855 Redlands Boulevard) was removed and, in 2009, the horse ranch was removed from the site (ibid.). In 2016, the residence and associated outbuildings located in the northeast portion of the site on APN 488-340-003 (28555 Fir Avenue) were removed (ibid.). In 2018, the ASTs were removed from the Project site in accordance with State and local regulations (ibid.).

As part of the PEA prepared in 2007, 66 soil samples were taken from 33 locations across the Project site, excluding the property occupied by the Adam Hall's Plant Nursery (LOR, 2019, pp. 8-10). The soil samples were tested for the presence of organochlorine pesticides, metals, lead, and arsenic. Elevated levels of chlordane – a pesticide primarily used to treat termites – were detected around the then-standing residence at 28555 Fir Avenue; organochlorine pesticides and metals were detected above laboratory reporting limits but below levels that pose a significant risk to human health (ibid.). Approximately 1.52 cubic yards of soil with elevated levels of chlordane was removed from the Project site and disposed off-site at an appropriate facility (ibid.). Following the removal of the contaminated soil, nine confirmation samples were taken from property at 28555 Fir Avenue; excessive levels of chlordane were not detected in the confirmation samples (ibid.). Following completion of the soil removal and the subsequent confirmation sampling, the California Department of Toxic Substances Control (DTSC) issued a no further action determination (ibid.).

2. Regulatory Records Review

LOR researched federal, State, and local environmental records databases to identify properties within one mile of the Project site with reported environmental issues. A summary of the research results is provided below; a detailed description of the environmental record review results is included in *Technical Appendix I* of this EIR.

The Project site address of 28855 Redlands Boulevard is listed on two State environmental records databases and one local (SCAQMD) database for a narcotics lab cleanup action and asbestos removal associated with the demolition of former structures at this address (LOR, 2019, pp. 25-26). No spill or release was indicated



in the report and the asbestos containing material (ACM) was properly transported and disposed off-site (ibid.). Accordingly, no adverse environmental impact was identified on the Project site. The Adam Hall's Plant Nursery is listed on a Riverside County Agricultural Commissioner's Office (RCACO) database for using restricted pesticides/herbicides (Roundup Promax Herbicide and Dimension 270-G) between February 2015 and August 2018; the pesticides/herbicides are classified as "restricted" because they are more hazardous to humans than retail pesticides/herbicides and should only be used by professionals (ibid.). The Project site is not listed on any federal or local environmental records database (ibid.).

3. *Field Reconnaissance*

LOR conducted an inspection of the Project site on February 13 and 20, 2019. During the site inspection, LOR observed the property to consist of undeveloped land, except for a commercial plant nursery which contained an associated office building and an ancillary garage, three residential buildings with associated garages and storage sheds, and one swimming pool/hot tub located in the southeast corner of the site.

LOR observed on-site storage of hazardous and non-hazardous substances associated with the plant nursery, including stockpiles of mulch, concrete blocks, landscape pots, shade cloth, steel and PVC pipe, concrete mixer, signs, plastic wrap, buckets of PVC fittings, a battery, hoses, small tools, some automotive products, cardboard and plastic storage boxes/containers, bags of potting soil, a pallet of urea, bags and containers of pesticides, several one (1)-gallon contains of PVC glue, and several five (5)-gallon buckets containing oil, paint, power washer, generator, and welder (LOR, 2019, pp. 1-2, 20-23, 27-29). In addition, several empty 55-gallon drums were observed on-site (ibid.). LOR did not observe substantial staining in the vicinity of any of the containers or drums (ibid.). An irrigation pipe and a potential well is located in the western half of the Project site and another water well was observed in the southeast corner of the site (ibid.). Minor amounts of household trash and debris were observed in the western half of the Project site from residential structures that had been recently demolished (ibid.). In addition, the Project site contains several active water wells and the remnants of a historic agricultural irrigation system (ibid.). No evidence of underground storage tanks (USTs), waste pits (other than the five domestic septic systems and leach fields serving the existing structures on the site), ponds, lagoons, pools of liquid, stained soil, stressed vegetation, exterior wastewater discharge, or stormwater were found on the Project site (ibid.). LOR did not observe any evidence of recognized environmental conditions (RECs) on the Project site, including historic recognized environmental conditions (HRECs), controlled recognized environmental conditions (CRECs), or vapor encroachment concerns (VECs), as defined by the American Society for Testing and Materials (ASTM) Designation E 15727-13 (ibid.).

B. Airport Hazards

The Project site is located approximately 5.7 miles northeast of the March Air Reserve Base/Inland Port (MARB/IP) Airport. The Project site is located outside of the influence area of the MARB/IP and is therefore not subject to the MARB/IP Airport Land Use Compatibility Plan (ALUCP) (ALUC, 2014a, Map MA-1). In addition, according to the ALUCP, the Project site is outside of the 60 dB CNEL noise contour and is not located within the March Air Reserve Base's Accident Potential Zone, its General Approach/Departure Traffic Pattern (approximately 80% of aircraft overflights estimated to occur within these limits), or within its Closed Circuit Traffic Pattern Envelope (approximately 80% of large aircraft overflights estimated to occur within these limits) (ALUC, 2014b, Exhibits MA-4 and MA-5).



C. Wildland Fire Hazards

The Project site is located in a portion of the City of Moreno Valley that is not located adjacent to any wildlands. According to the Moreno Valley General Plan, the Project site and its surrounding area are not located within a “very high fire risk” area (Moreno Valley, 2006b, Figure 5.5-2). According to the California Department of Forestry and Fire Protection (Cal Fire), the Project site is not located within a very high fire hazard severity zone (Cal Fire, 2007).

4.8.2 REGULATORY SETTING

Hazardous materials and hazardous wastes are regulated by various federal, State, and local regulations to protect public health and the environment. The following is a brief description of the federal, State, and local environmental laws and related regulations governing issues related to hazards and hazardous materials.

A. Federal Plans, Policies, and Regulations

1. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Superfund Amendments and Reauthorization Act (SARA)

The Comprehensive Environmental Response, Compensation, and Liability Act, also known as CERCLA or Superfund, provides a Federal "Superfund" to clean up uncontrolled or abandoned hazardous-waste sites as well as accidents, spills, and other emergency releases of pollutants and contaminants into the environment (EPA, 2019b). Through CERCLA, the Environmental Protection Agency (EPA) was given power to seek out those parties responsible for any release and assure their cooperation in the cleanup. EPA cleans up orphan sites when potentially responsible parties cannot be identified or located, or when they fail to act. Through various enforcement tools, EPA obtains private party cleanup through orders, consent decrees, and other small party settlements. EPA also recovers costs from financially viable individuals and companies once a response action has been completed.

EPA is authorized to implement the Act in all 50 states and U.S. territories. Superfund site identification, monitoring, and response activities in states are coordinated through the state environmental protection or waste management agencies.

The Superfund Amendments and Reauthorization Act (SARA) reauthorized CERCLA to continue cleanup activities around the country. Several site-specific amendments, definitions clarifications, and technical requirements were added to the legislation, including additional enforcement authorities. Also, Title III of SARA authorized the Emergency Planning and Community Right-to-Know Act (EPCRA).

2. Resource Conservation and Recovery Act (RCRA)

The Resource Conservation and Recovery Act (RCRA) gives EPA the authority to control hazardous waste from the "cradle-to-grave" (EPA, 2019c). This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances.



The Federal Hazardous and Solid Waste Amendments (HSWA) are the 1984 amendments to RCRA that focused on waste minimization and phasing out land disposal of hazardous waste as well as corrective action for releases. Some of the other mandates of this law include increased enforcement authority for EPA, more stringent hazardous waste management standards, and a comprehensive underground storage tank program.

3. *Hazardous Materials Transportation Act (HMTA)*

The Hazardous Materials Transportation Act of 1975 (HMTA) empowered the Secretary of Transportation to designate as hazardous material any "particular quantity or form" of a material that "may pose an unreasonable risk to health and safety or property" (OSHA, n.d.).

Hazardous materials regulations are subdivided by function into four basic areas:

- Procedures and/or Policies 49 CFR Parts 101, 106, and 107
- Material Designations 49 CFR Part 172
- Packaging Requirements 49 CFR Parts 173, 178, 179, and 180
- Operational Rules 49 CFR Parts 171, 173, 174, 175, 176, and 177

The HMTA is enforced by use of compliance orders [49 U.S.C. 1808(a)], civil penalties [49 U.S.C. 1809(b)], and injunctive relief (49 U.S.C. 1810). The HMTA (Section 112, 40 U.S.C. 1811) preempts state and local governmental requirements that are inconsistent with the statute, unless that requirement affords an equal or greater level of protection to the public than the HMTA requirement.

4. *Hazardous Materials Transportation Uniform Safety Act of 1990*

In 1990, Congress enacted the Hazardous Materials Transportation Uniform Safety Act (HMTUSA) to clarify the maze of conflicting state, local, and federal regulations. Like the HMTA, the HMTUSA requires the Secretary of Transportation to promulgate regulations for the safe transport of hazardous material in intrastate, interstate, and foreign commerce (OSHA, n.d.). The Secretary also retains authority to designate materials as hazardous when they pose unreasonable risks to health, safety, or property.

The statute includes provisions to encourage uniformity among different state and local highway routing regulations, to develop criteria for the issuance of federal permits to motor carriers of hazardous materials, and to regulate the transport of radioactive materials.

5. *Occupational Safety and Health Act (OSHA)*

Congress passed the Occupational and Safety Health Act (OSHA) to ensure worker and workplace safety. Their goal was to make sure employers provide their workers a place of employment free from recognized hazards to safety and health, such as exposure to toxic chemicals, excessive noise levels, mechanical dangers, heat or cold stress, or unsanitary conditions (EPA, 2019d).



In order to establish standards for workplace health and safety, the Act also created the National Institute for Occupational Safety and Health (NIOSH) as the research institution for OSHA. OSHA is a division of the U.S. Department of Labor that oversees the administration of the Act and enforces standards in all 50 states.

6. *Toxic Substances Control Act*

The Toxic Substances Control Act of 1976 provides EPA with authority to require reporting, record-keeping and testing requirements, and restrictions relating to chemical substances and/or mixtures (EPA, 2019e). Certain substances are generally excluded from TSCA, including, among others, food, drugs, cosmetics, and pesticides. TSCA addresses the production, importation, use, and disposal of specific chemicals including polychlorinated biphenyls (PCBs), asbestos, radon, and lead-based paint.

Various sections of TSCA provide authority to:

- Require, under Section 5, pre-manufacture notification for "new chemical substances" before manufacture
- Require, under Section 4, testing of chemicals by manufacturers, importers, and processors where risks or exposures of concern are found
- Issue Significant New Use Rules (SNURs), under Section 5, when it identifies a "significant new use" that could result in exposures to, or releases of, a substance of concern.
- Maintain the TSCA Inventory, under Section 8, which contains more than 83,000 chemicals. As new chemicals are commercially manufactured or imported, they are placed on the list.
- Require those importing or exporting chemicals, under Sections 12(b) and 13, to comply with certification reporting and/or other requirements.
- Require, under Section 8, reporting and record-keeping by persons who manufacture, import, process, and/or distribute chemical substances in commerce.
- Require, under Section 8(e), that any person who manufactures (including imports), processes, or distributes in commerce a chemical substance or mixture and who obtains information which reasonably supports the conclusion that such substance or mixture presents a substantial risk of injury to health or the environment to immediately inform EPA, except where EPA has been adequately informed of such information. EPA screens all TSCA b§8(e) submissions as well as voluntary "For Your Information" (FYI) submissions. The latter are not required by law, but are submitted by industry and public interest groups for a variety of reasons.

7. *Federal Aviation Regulations Part 77*

Federal Regulation Title 14 Part 77 establishes standards and notification requirements for objects affecting navigable airspace. This notification serves as the basis for:

- Evaluating the effect of the construction or alteration on operating procedures;



- Determining the potential hazardous effect of the proposed construction on air navigation;
- Identifying mitigating measures to enhance safe air navigation; and
- Charting of new objects.

Notification allows the Federal Aviation Administration (FAA) to identify potential aeronautical hazards in advance to prevent or minimize the adverse impacts to the safe and efficient use of navigable airspace. Any person/organization who intends to sponsor any of the following construction or alterations must notify the Administrator of the FAA (FAA, 2019):

- Any construction or alteration exceeding 200 feet above ground level.
- Any construction or alteration:
 - within 20,000 feet of a public use or military airport which exceeds a 100:1 surface from any point on the runway of each airport with at least one runway more than 3,200 feet.
 - within 10,000 feet of a public use or military airport which exceeds a 50:1 surface from any point on the runway of each airport with its longest runway no more than 3,200 feet.
 - within 5,000 feet of a public use heliport which exceeds a 25:1 surface.
- Any highway, railroad, or other traverse way whose prescribed adjusted height would exceed that above noted standards.
- When requested by the FAA.
- Any construction or alteration located on a public use airport or heliport regardless of height or location.

B. State Plans, Policies, and Regulations

1. Cal/OSHA and the California State Plan

Under an agreement with OSHA, since 1973 California has operated an occupational safety and health program in accordance with Section 18 of the federal OSHA. The State of California's Department of Industrial Relations administers the California Occupational Safety and Health Program, commonly referred to as Cal/OSHA. The State of California's Division of Occupational Safety and Health (DOSH) is the principal agency that oversees plan enforcement and consultation. In addition, the California State program has an independent Standards Board responsible for promulgating State safety and health standards, and reviewing variances. It also has an Appeals Board to adjudicate contested citations and the Division of Labor Standards Enforcement to investigate complaints of discriminatory retaliation in the workplace.

Pursuant to 29 CFR 1952.172, the California State Plan applies to all public and private sector places of employment in the State, with the exception of federal employees, the United States Postal Service, private sector employers on Native American lands, maritime activities on the navigable waterways of the United States, private contractors working on land designated as exclusively under federal jurisdiction and employers



that require federal security clearances. Cal/OSHA is the only agency in the State authorized to adopt, amend, or repeal occupational safety and health standards or orders. The Cal/OSHA enforcement unit conducts inspections of California workplaces in response to a report of an industrial accident, a complaint about an occupational safety and health hazard, or as part of an inspection program targeting industries with high rates of occupational hazards, fatalities, injuries or illnesses.

2. *California Hazardous Waste Control Law*

The Hazardous Waste Control Law (HWCL) (Health and Safety Code [HSC], Division 20, Chapter 6.5, Article 2, Section 25100, et seq.) is the primary hazardous waste statute in California. The HWCL implements RCRA as a “cradle-to-grave” waste management system in the State. It specifies that generators have the primary duty to determine whether their wastes are hazardous and to ensure its proper management. The HWCL also establishes criteria for the reuse and recycling of hazardous wastes used or reuse as raw materials. The HWCL exceeds federal requirements by mandating source reduction planning and broadening requirements for permitting facilities that treat hazardous waste. It also regulates a number of waste types and waste management activities not covered by federal law (RCRA).

3. *California Code of Regulations (CCR), Titles 5, 17, 22 and 26*

A variety of California Code of Regulation (CCR) titles address regulations and requirements related to hazardous materials and hazardous waste. Title 5 contains the California Plumbing Code which, in Appendix H, establishes detailed standards for the capping, removal, fill, and disposal of cesspools, septic tanks, and seepage pits (see H 1101.0). CCR Title 17, Division 1, Chapter 8, defines and regulates handling and disposal of lead-based paint. Any detectable amount of lead is regulated. Title 22 contains detailed compliance requirements for hazardous waste generators, transporters, and facilities for treatment, storage, and disposal. Because California is a fully-authorized state according to RCRA, most regulations (i.e., 40 CFR 260, et seq.) have been duplicated and integrated into Title 22. However, because the Department of Toxic Substances Control (DTSC) regulates hazardous waste more stringently than the EPA, the integration of State and federal hazardous waste regulations that make up Title 22 does not contain as many exemptions or exclusions as does 40 CFR 260. As with the HSC, Title 22 also regulates a wider range of waste types and waste management activities than does RCRA. To aid the regulated community, California has compiled hazardous materials, waste, and toxics-related regulations from CCR, Titles 3, 8, 13, 17, 19, 22, 23, 24 and 27 into one consolidated listing: CCR Title 26 (Toxics). However, the hazardous waste regulations are still commonly referred to collectively as “Title 22.”

4. *California Government Code (CGC) Section 51178*

This section specifies that the Director of CalFire, in cooperation with local fire authorities, shall identify areas that are Very High Fire Hazard Severity Zones (VHFHSZ) in Local Responsibility Areas (LRAs), based on consistent statewide criteria, and the expected severity of fire hazard. Per CGC Section 51178, a local agency may, at its discretion, exclude from the requirements of Section 51182 an area within its jurisdiction that has been identified as a VHFHSZ, if it provides substantial evidence in the record that the requirements of Section 51182 are not necessary for effective fire protection within the area. Alternatively, local agencies may include areas not identified as VHFHSZ by CalFire, following a finding supported by substantial evidence in the record that the requirements of Section 51182 are necessary for effective fire protection within the new area.



According to Section 51182, such changes made by a local agency shall be final, and shall not be rebuttable by CalFire.

C. Local Plans, Policies, and Regulations

1. Local Permitting Requirements

The aforementioned federal and State hazardous materials regulations require all businesses that handle more than a specified amount of hazardous materials or extremely hazardous materials to obtain a hazardous materials permit and submit a business plan to its local Certified Unified Program Agency (CUPA). The CUPA also ensures local compliance with all applicable hazardous materials regulations. The CUPA with responsibility for the City of Moreno Valley is the Riverside County Department of Environmental Health (DEH). The Riverside County DEH manages and oversees 25 other programs related to hazardous materials/waste, including programs related to the handling and storage of hazardous materials, hazardous materials remediation, petroleum storage tanks, green waste, solid waste, liquid waste, universal waste and environmental cleanup (RCDEH, 2020). The Riverside County DEH also manages and oversees programs related to emergency response and enforcement, vector control and water quality (ibid.).

2. SCAQMD Rule 1403 – Asbestos Emissions from Demolition/Renovation Activities

Rule 1403 requires the implementation of specific work practices to limit asbestos emissions from building demolition and renovation activities, including the removal and associated disturbance of asbestos-containing materials (ACM) (SCAQMD, 2007). The requirements for demolition and renovation activities include asbestos surveying, notification, ACM removal procedures and time schedules, ACM handling and clean-up procedures, and storage, disposal, and landfilling requirements for asbestos-containing waste materials (ACWM) (ibid.).

4.8.3 BASIS FOR DETERMINING SIGNIFICANCE

The Project would result in a significant impact to hazards and hazardous materials if the Project or any Project-related component would:

- a. Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials;*
- b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;*
- c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;*
- d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result would it create a significant hazard to the public or the environment;*
- e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area;*



- f. *Impair implementation of, or physically interfere with an adopted emergency response plan or emergency evacuation plan; or*
- g. *Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.*

The above-listed thresholds are referenced in the *City of Moreno Valley Rules and Procedures for the Implementation of the California Environmental Quality Act* and address the typical, adverse effects related to hazards and hazardous materials that could result from development projects.

4.8.4 IMPACT ANALYSIS

The proposed warehouse distribution/logistics facility and the conceptual fulfillment/e-commerce facility site plans described in EIR Section 3.0, *Project Description*, would result in identical ground-disturbing impacts. Thus, the analysis provided on the following pages addresses the potential impacts related to hazards and hazardous materials that would result from implementation of the Project for either warehouse distribution/logistics or fulfillment/e-commerce uses.

Threshold a: *Would the Project create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?*

Threshold b: *Would the Project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?*

Implementation of the Project would require demolition and removal of all existing structures, improvements, and solid waste from the Project site and would result in the construction and long-term operation of a light industrial building on the site. In the event any hazards or hazardous materials were to be present on the Project site or any hazardous materials were to be used or stored on the Project site during construction or long-term operation, the Project would have the potential to expose workers on-site, the public, and/or the environment to a substantial hazard. The analysis below evaluates the potential for the Project to result in a substantial hazard to people or the environment during any stage of the Project.

A. Impact for Analysis for Existing Site Conditions

As discussed in Subsection 4.8.1, the Project site contains no evidence of RECs, USTs, PCBs, or significant chemical release/disposal.

1. Pesticides

The eastern half of the Project site was used for agriculture (i.e., citrus orchards) from at least 1938 until 1967. Soil samples were collected from the Project site in 2007, excluding from the area occupied by the Adam Hall’s Plant Nursery. The Adam Hall’s Plant Nursery site was historically part of the same citrus orchard operation as the other portions of the Project site where soil samples were taken; thus, the results of the 2007 soil samples are considered to be representative of the conditions at the Adam Hall’s Plant Nursery site. Except for an isolated on-site area with elevated levels of chlordane (which has since been remediated), none of the



soil samples contained pesticides or heavy metals at concentrations that posed a substantial hazard to people or the environment (LOR, 2019, pp. 8-10). Pesticides that pose the biggest risk to human and environmental health – organochlorine pesticides – were banned prior to operation of the Adam Hall’s Plant Nursery and LOR did not observe the improper use, handling, or storage of pesticides on the Nursery site during the site reconnaissance; therefore, it is unlikely that there are any special circumstances on the Nursery site that would not be reflected in the 2007 soil samples. Based on the foregoing, the historical agricultural use of the Project site does not represent a REC or a human health risk (LOR, 2019, pp. 28-29). Implementation of the Project would result in a less-than-significant impact.

2. *Building Materials*

The use of ACMs (a known carcinogen) and lead paint (a known toxin) was common in building construction prior to 1978. Because the Project site contains structures known to be constructed before 1978, there is the potential that ACMs and/or lead paint is present on the Project site. The Project site also has the potential to contain underground irrigation pipes that could date to the 1930s (or earlier) that contain or are wrapped in ACMs.

Asbestos is a carcinogen and is categorized as a hazardous air pollutant by the federal EPA. Federal asbestos requirements are found in National Emission Standards for Hazardous Air Pollutants (NESHAP) within the Code of Federal Regulations (CFR) Title 40, Part 61, Subpart M, and are enforced in the Project area by the SCAQMD via Rule 1403. Rule 1403 establishes survey requirements, notification, and work practice requirements to prevent asbestos emissions from emanating during building renovation and demolition activities. Assuming that ACMs are present in the existing construction debris and/or structures located on the property, then Rule 1403 requires notification of the SCAQMD prior to commencing any demolition or renovation activities. Rule 1403 also sets forth specific procedures for the removal of asbestos, and requires that an on-site representative trained in the requirements of Rule 1403 be present during the stripping, removing, handling, or disturbing of ACM. Mandatory compliance with the provisions of Rule 1403 would ensure that construction-related grading, clearing and demolition activities do not expose construction workers or nearby sensitive receptors to significant health risks associated with ACMs. Because the Project’s demolition and construction contractors would be required to comply with AQMD Rule 1403 during demolition activities, impacts due to asbestos would be less than significant.

During demolition of the existing buildings on-site, there also is a potential to expose construction workers to health hazards associated with lead-based paint (LBP). The Project’s demolition and construction contractors would be required to comply with CCR Title 17 (Division 1, Chapter 8), which includes requirements such as employer provided training, air monitoring, protective clothing, respirators, and hand washing facilities. Mandatory compliance with these mandatory requirements would ensure that construction workers and the public are not exposed to significant LBP health hazards during demolition and/or during transport of demolition waste to an appropriate disposal facility, and would ensure that impacts related to LBP remain less than significant.

Although impacts would be less than significant with compliance to the regulations cited above, Mitigation Measures (MMs) 4.8-1 and 4.8-2 are included in this EIR to ensure compliance with applicable regulations. MM 4.8-1 requires a pre-demolition survey for ACMs and LBP. If any ACMs and/or LBP are detected on-



site, MM 4.8-2 requires the Project Applicant to provide evidence to the City that the ACMs and/or LBP have been removed. Impacts would remain less than significant.

3. *Septic Systems*

Although not observed in the 2019 site inspection conducted by LOR, a 2016 site inspection conducted by Partner Engineering and Science Inc. identified five (5) septic systems associated with the residences on the Project site. Any septic system found on-site would be required to be removed, handled, and disposed in accordance with all applicable local and State regulations, including but not limited to the CCR Title 5, Appendix H. Accordingly, implementation of the Project would not expose the public or the environment to significant hazards associated with the removal and disposal of the on-site septic systems from the Project site; impacts would be less than significant.

4. *Water Wells*

A water well associated with the existing plant nursery is located on the southeast corner of the Project site and potentially another water well is located in the western portion of the Project site; both of which would be abandoned as part of the proposed Project. The abandonment of the existing water wells would be required to occur in accordance with the Riverside County DEH policies and procedures, including but not limited to a mandatory decommissioning and capping procedure as part of proposed construction activities. Contaminated groundwater does not exist beneath the surface of the site; therefore, in the event of an accident during the well abandonment process, there is no potential to release contaminated groundwater. As such, a significant hazard to the public or the environment would not be created and impacts would be less than significant.

B. Impact Analysis for Temporary Construction-Related Activities

Heavy equipment (e.g., dozers, excavators, tractors) would be operated on the Project site during construction. This heavy equipment likely would be fueled and maintained by petroleum-based substances such as diesel fuel, gasoline, oil, and hydraulic fluid, which are considered hazardous if improperly stored or handled. In addition, materials such as paints, adhesives, solvents, and other substances typically used in building construction would be located on the Project site during construction. Improper use, storage, or transportation of hazardous materials can result in accidental releases or spills, potentially posing health risks to workers, the public, and the environment. This is a standard risk on all construction sites, and there would be no greater risk for improper handling, transportation, or spills associated with the Project than would occur on any other similar construction site. Construction contractors would be required to comply with all applicable federal, State, and local laws and regulations regarding the transport, use, and storage of hazardous construction-related materials, including but not limited requirements imposed by the EPA, DTSC, and the Santa Ana RWQCB. With mandatory compliance with applicable hazardous materials regulations, the Project would not create significant hazard to the public or the environment through routine transport, use, or disposal of hazardous materials during the construction phase. A less-than-significant impact would occur.

Although impacts would be less than significant with compliance to the regulations cited above, Mitigation Measure MM 4.8-3 is specified herein to ensure regulatory compliance, which requires the Project Applicant to conduct soil testing in the event that any unidentified subsurface feature, oil, or chemical-stained concrete



is discovered during grading and removal/remediation actions (if deemed hazardous). Impacts would remain less than significant.

C. Impact Analysis for Long-Term Operation

The future occupants of the Project’s proposed light industrial building are currently unknown. It is anticipated that the building will be occupied by warehouse distribution/logistics or fulfillment/e-commerce businesses. There is the potential for hazardous materials (e.g., diesel fuel, cleansers, lubricants) to be used during the course of normal daily operations at the Project site with these types of users. State and federal Community-Right-to-Know laws allow the public access to information about the amounts and types of chemicals that may be used by businesses on the Project site. Laws also are in place that require businesses to plan and prepare for possible chemical emergencies. Any business that occupies the building on the Project site and that handles/stores substantial quantities of hazardous materials (as defined in Section 25500 of California Health and Safety Code, Division 20, Chapter 6.95) will require a permit from the Riverside County Fire Department, Hazardous Materials Division in order to register the business as a hazardous materials handler. Such businesses also are required to comply with California’s Hazardous Materials Release Response Plans and Inventory Law, which requires immediate reporting to the Riverside County Fire Department and the State Office of Emergency Services regarding any release or threatened release of a hazardous material, regardless of the amount handled by the business, and to prepare a Hazardous Materials Business Emergency Plan (HMBEP). An HMBEP is a written set of procedures and information created to help minimize the effects and extent of a release or threatened release of a hazardous material.

With mandatory regulatory compliance, the Project would not pose a significant hazard to the public or the environment through the routine transport, use, storage, emission, or disposal of hazardous materials, nor would the Project increase the potential for accident conditions which could result in the release of hazardous materials into the environment. Based on the foregoing information, potential hazardous materials impacts associated with long-term operation of the Project are regarded as less than significant and no mitigation is required.

Threshold c: Would the Project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No existing or proposed schools are located within one-quarter mile of the Project site. The nearest school to the Project site is Ridge Crest Elementary School, located at 28500 John F Kennedy Drive, approximately 0.4-mile south of the Project site (Google Earth Pro, 2020). Accordingly, the proposed Project has no potential to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, and/or wastes within one-quarter mile of an existing or proposed school.

As described above under the analysis for Thresholds “a” and “b,” the use of and transport of hazardous substances or materials to-and-from the Project site during construction and long-term operational activities would be required to comply with applicable federal, State, and local regulations that would preclude substantial public safety hazards. Accordingly, there would be no potential for existing or proposed schools to be exposed to substantial safety hazards associated with emission, handling of, or the routine transport of hazardous substances or materials to-and-from the Project site and impacts would be less than significant.



Refer to EIR Subsection 4.2, *Air Quality*, for analysis pertaining to human health risks associated with air pollutant emissions associated with the Project, including risks to the maximally exposed school child receptors located within a one-quarter mile radius from the Project site and its primary truck route. As concluded in EIR Subsection 4.2, the Project’s toxic air contaminant emissions (and their associated health risks) would be less than significant.

Threshold d: *Would the Project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result would it create a significant hazard to the public or the environment?*

The Project site is not located on any list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (DTSC, 2020; LOR, 2019, pp. 25-27). Accordingly, no impact would occur.

Threshold e: *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?*

As previously described, the Project site is located outside of the influence area for the MARB/IP Airport. The Project site also is outside of the 60 dB CNEL noise contour and is not located within an Accident Potential Zone, “Clear Zone,” its General Approach/Departure Traffic Pattern (approximately 80% of aircraft overflights estimated to occur within these limits), or within its Closed Circuit Traffic Pattern Envelope (approximately 80% of large aircraft overflights estimated to occur within these limits) (ALUC, 2014a, Map MA-1; ALUC, 2014b, Exhibits MA-4 and MA-5; Moreno Valley, 2006b, Figure 5.5-3). Accordingly, implementation of the Project would not expose future employees on the Project site to substantial safety hazards or adverse noise effects from the MARB/IP Airport. Impacts would be less than significant.

Threshold f: *Would the Project impair implementation of, or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

The Project site does not contain any emergency facilities nor does it serve as an emergency evacuation route. During construction and long-term operation, the proposed Project would be required to maintain adequate emergency access for emergency vehicles. As part of the City’s discretionary review process, the City of Moreno Valley reviewed the Project’s application materials to ensure that appropriate emergency ingress and egress would be available to-and-from the Project site and that the Project would not substantially impede emergency response times in the local area. Accordingly, implementation of the Project would not impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan, and no impact would occur.

Threshold g: *Would the Project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?*

The Project site is not located within a State Responsibility Area or a very high fire hazard severity zone. Neither Cal Fire nor the City of Moreno Valley identify the Project site within an area susceptible to wildland fires and the Project site and surrounding areas generally consist of agricultural, commercial, industrial, and/or



residential uses, which are generally not associated with wildland fire hazards (Moreno Valley, 2006b, Figure 5.5-2; Cal Fire, 2007; Google Earth Pro, 2020). Accordingly, the Project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. No impact would occur.

4.8.5 CUMULATIVE IMPACT ANALYSIS

As discussed above under the responses to Thresholds “a” and “b,” the Project’s construction and operation would be required to comply with all applicable federal, State, and local regulations to ensure proper use, storage, and disposal of hazardous substances. Such uses also would be subject to additional review and permitting requirements by the Riverside County Fire Department. Similarly, any other developments in the area proposing the construction of uses with the potential for use, storage, or transport of hazardous materials also would be required to comply with applicable federal, State, and local regulations, and such uses would be subject to additional review and permits from their local oversight agency. Therefore, the potential for release of toxic substances or hazardous materials into the environment, either through accidents or due to routine transport, use, or disposal of such materials, would be reduced to a less-than-cumulatively-significant level.

The Project site is not located within one-quarter mile of an existing or planned school; therefore, the Project would not contribute to a cumulatively significant hazards/hazardous materials impact on any public or private schools located within one-quarter mile of the site.

The Project site is not located on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5; therefore, the Project has no potential to contribute to substantial, cumulative effects related to the development or re-development of contaminated property.

As discussed above under the response to Threshold “e,” the Project is not located within the influence area of the MARB/IP Airport; therefore, the Project would not result in a safety hazard or excessive noise for people residing or working in the Project area and would not contribute to a cumulatively-considerable impact associated with airport hazards.

The Project site does not contain any emergency facilities nor does it serve as an emergency evacuation route; thus, there is no potential for the Project to contribute to any cumulative impacts associated with an adopted emergency response plan or emergency evacuation plan.

As discussed above under Threshold “g,” the Project site is not located within or in close proximity to areas identified as being subject to wildland fire hazards and would have no potential to contribute to adverse, cumulative wildland fire hazards.

4.8.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold a and b: Less-than-Significant Impact. During Project construction and operation, mandatory compliance to federal, State, and local regulations would ensure that the proposed Project would not create a significant hazard to the environment due to routine transport, use, disposal, or upset of hazardous materials.



Threshold c: Less-than-Significant Impact. The Project site is not located within one-quarter mile of any existing or proposed school. Accordingly, the Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. Impacts to schools located more than one-quarter mile of the Project site would be less than significant.

Threshold d: No Impact. The Project site is not located on any list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

Threshold e: Less-than-Significant Impact. The Project is not subject to the MARB ALUCP because the Project site is located outside of the MARB influence area. As such, the Project would not result in an airport safety hazard for people residing or working in the Project area.

Threshold f: Less-than-Significant Impact. The Project site does not contain any emergency facilities nor does it serve as an emergency evacuation route. During construction and long-term operation, adequate emergency vehicle access is required to be provided. Accordingly, implementation of the Project would not impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan.

Threshold g: No Impact. The Project site is not located in close proximity to wildlands or areas with high fire hazards. Thus, the Project would not expose people or structures to a significant wildfire risk.

4.8.7 MITIGATION

Although implementation of the Project would result in less-than-significant impacts related to hazards and hazardous materials, the following mitigation measures are included in this EIR to ensure regulatory compliance with applicable federal, State, and local regulations addressing hazardous materials.

MM 4.8-1 Prior to the issuance of any demolition permits, the Project Applicant shall provide evidence to the City that a pre-demolition survey for asbestos-containing materials (ACMs) and lead-based paint (LBP) has been conducted for each building to be demolished. If ACMs or LBP are detected, MM 4.8-2 shall be implemented.

MM 4.8-2 In the event that ACMs or LBP are detected during the pre-construction survey required by Mitigation Measure MM 4.8-1, the Project Applicant shall provide evidence to the City that all ACMs and LBP have been removed and disposed of according to applicable laws and regulations, as outlined in “Steps to Lead Safe Removal, Renovation, and Disposal” (U.S. EPA-740- K-11-001) issued October 2011 (www.epa.gov/lead) for LBP and “Standards for Demolition and Removal” (40 CFR Section 61.145) under the Asbestos National Emission Standard for Hazardous Air Pollutants (NESHAP) (www.epa.gov/asbestos) for ACMs.

MM 4.8-3 In the event that any unidentified subsurface feature, oil, or chemical-stained concrete is discovered during grading or other ground-disturbing construction activity, all activity in the vicinity of the unidentified material shall be halted and a qualified hazardous materials professional shall be called to inspect the site and determine if further assessment is needed.



The results of any testing shall be provided to the City. In the event that the material is determined not to be hazardous, no further action is required. In the event that the material is deemed hazardous, removal/remediation shall be conducted pursuant to applicable State Department of Toxic Substances Control (DTSC) or California Code of Regulations (CCR) Title 22 hazardous waste criteria or contamination standards for industrial land uses. This work must be carried out by a qualified hazardous materials professional hired by the Project Applicant. Prior to the completion of material removal, the Project Applicant shall submit evidence to the City for review and approval demonstrating that the hazardous material has been appropriately removed/remediated. This measure shall be implemented to the satisfaction of the City of Moreno Valley's Community Development Department.



4.9 HYDROLOGY & WATER QUALITY

Information in this Subsection relies on four technical reports prepared for the Project site by Thienes Engineering, Inc. (hereafter, “Thienes”): 1) “Preliminary Hydrology Calculations for Moreno Valley Trade Center,” dated October 28, 2019 (revised March 17, 2021) (Thienes, 2019a); 2) “Project Specific Preliminary Water Quality Management Plan,” dated August 23, 2019 (Thienes, 2019b); 3) “Preliminary Hydrology Calculations for Moreno Valley Trade Center, Option 2 E-Commerce/Fulfillment Center Site Plan” dated January 24, 2020 (revised March 24, 2021) (Thienes, 2020a); and 4) “Project Specific Preliminary Water Quality Management Plan Moreno Valley Trade Center, Option 2 E-Commerce/Fulfillment Center Site Plan” dated March 16, 2020 (Thienes, 2020b). The analysis in the section also is supported by a supplemental hydrology memorandum prepared by Thienes (Thienes, 2021). These reports and memorandum are provided as *Technical Appendices J1 through J5* to this EIR, respectively.

The Project site is located within the Santa Ana River watershed and is under the jurisdiction of the Santa Ana Regional Water Quality Control Board (RWQCB). As such, information for this Subsection also was obtained from the Santa Ana RWQCB’s *Santa Ana River Basin Water Quality Control Plan* (updated June 2019) and the *Integrated Regional Water Management Plan (IRWMP)* for the Santa Ana River Watershed (also referred to as “One Water One Watershed Plan Update 2018,” (February 19, 2019) prepared by the Santa Ana Watershed Project Authority (SAWPA). These documents are herein incorporated by reference and are available for public review at the physical locations and website addresses given in EIR Section 7.0, *References*.

4.9.1 EXISTING CONDITIONS

A. Regional Hydrology

The Project site is located within the Santa Ana River watershed, which drains a 2,840 square-mile area and is the principal surface flow water body within the region. The Santa Ana River rises in Santa Ana Canyon in the southern San Bernardino Mountains and runs southwesterly across San Bernardino, Riverside, and Orange Counties, where it discharges into the Pacific Ocean at the City of Huntington Beach. The total length of the Santa Ana River and its major tributaries is approximately 700 miles (SAWPA, 2019, p. 4-1). The location of the Project site within the Santa Ana River watershed is depicted on Figure 4.9-1, *Santa Ana River Watershed Map*.

B. Site Hydrology

Under existing conditions, runoff from the Project site drains across the Project site as sheet flow southerly towards Encelia Avenue and then, within Encelia, from west to east to an existing earthen channel adjacent to Redlands Boulevard (Thienes, 2019a; Thienes, 2020a). From the earthen channel, flows continue south where they discharge into an existing storm drain pipe beneath Redlands Boulevard at Dracaea Avenue and are conveyed to an existing storm drain channel south of Brodiaea Avenue.

C. Flooding and Dam Inundation

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) No. 06065C0770G, dated August 28, 2008, the Project site is located within “Zone X (shaded),” which corresponds



to areas within the 500-year floodplain (also referred to as the 0.2% annual chance floodplain) (FEMA, 2008). No portions of the Project site are located within a 100-year flood hazard area (ibid.).

According to the City of Moreno Valley General Plan EIR, the Project site is not located within any mapped dam inundation area (Moreno Valley, 2006b, Figure 6-4).

D. Water Quality

The Federal Water Pollution Control Act Amendment of 1972 (also referred to as the Clean Water Act, CWA) requires all states to conduct water quality assessments of their water resources to identify water bodies that do not meet water quality standards. Water bodies that do not meet water quality standards due to excessive concentrations of pollutants are placed on a list of impaired waters pursuant to Section 303(d) of the CWA. Canyon Lake (nutrients), Lake Elsinore (DDT, nutrients, organic enrichment/low dissolved oxygen, Polychlorinated biphenyls [PCBs], and toxicity), the Santa Ana River Reach 3 (copper, indicator bacteria, and lead), and Tidal Prism of Santa Ana River and Newport Slough (indicator bacteria) are receiving waters from the Project site that are included on the Section 303(d) list of the CWA as having water quality impairments (Thienes, 2019b, pp. 8-9; Thienes, 2020b, pp. 8-9).

E. Groundwater

The City of Moreno Valley is underlain by groundwater resources associated with the Perris North and San Jacinto Groundwater Basins. The Project site is located within the Perris North Groundwater Basin within the West San Jacinto Groundwater Management Area (EMWD, 2019, Figure 7-1). The Eastern Municipal Water District (EMWD) relies on groundwater resources from both the Perris North and San Jacinto Groundwater Basins for a portion of its water supply, and each of these groundwater basins are regulated by the EMWD's West San Jacinto Groundwater Basin Groundwater Management Plan (EMWD, 2019, pp. 1, 22). EMWD oversees the monitoring programs within the West San Jacinto Management Area including groundwater extraction at public and private wells and works with well owners to limit groundwater use and maximize groundwater supply. According to a site survey conducted by LOR, there are multiple active and suspected water wells on the Project site (LOR, 2019, p. 1).

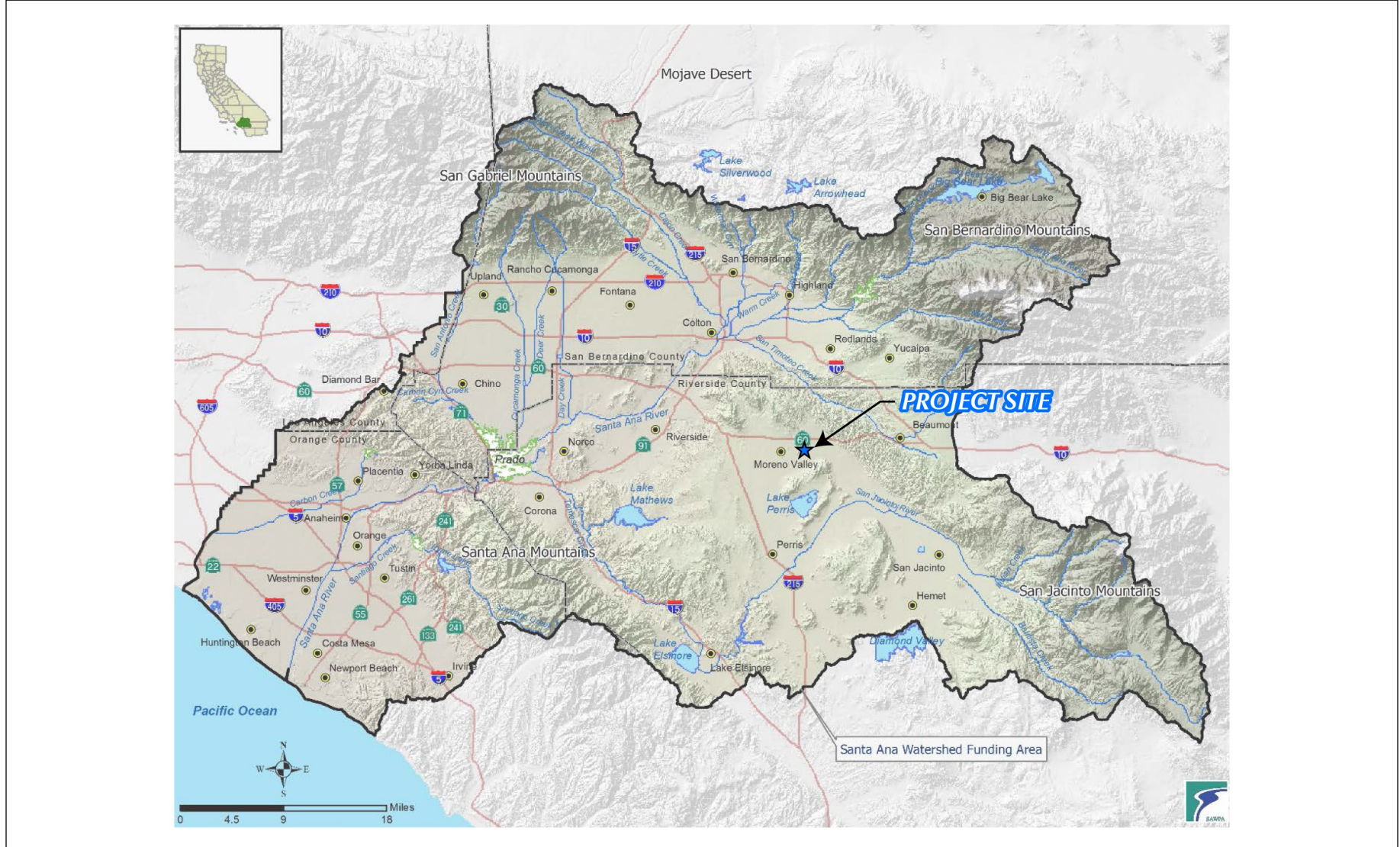
4.9.2 REGULATORY SETTING

The following is a brief description of the federal, State, and local environmental laws, related regulations, and plans related to hydrology and water quality.

A. Federal Plans, Policies, and Regulations

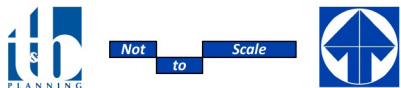
1. Clean Water Act

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters (EPA, 2019a). The basis of the CWA was enacted in 1948 and was called the Federal Water Pollution Control Act, but the Act was substantially reorganized and expanded in 1972. "Clean Water Act" became the Act's common name with amendments in 1972. Under the CWA, the Environmental Protection Agency (EPA) has implemented



Source(s): SAWPA (November 2018)

Figure 4.9-1



Santa Ana River Watershed Map



pollution control programs such as setting wastewater standards for industry, and also has set water quality standards for all contaminants in surface waters. The CWA made it unlawful to discharge any pollutant from a point source into navigable waters, unless a permit was obtained. EPA's National Pollutant Discharge Elimination System (NPDES) permit program controls discharges. Point sources are discrete conveyances such as pipes or man-made ditches. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters.

B. State Plans, Policies, and Regulations

1. Porter-Cologne Water Control Act

The Porter-Cologne Act is the principal law governing water quality regulation in California. It establishes a comprehensive program to protect water quality and the beneficial uses of water. The Porter-Cologne Act applies to surface waters, wetlands, and ground water and to both point and nonpoint sources of pollution. Pursuant to the Porter-Cologne Act (California Water Code Section 13000 *et seq.*), the policy of the State is as follows (SWRCB, 2014a):

- That the quality of all the waters of the State shall be protected;
- That all activities and factors affecting the quality of water shall be regulated to attain the highest water quality within reason; and
- That the State must be prepared to exercise its full power and jurisdiction to protect the quality of water in the State from degradation.

The Porter-Cologne Act established nine Regional Water Boards (based on hydrogeologic barriers) and the State Water Board, which are charged with implementing its provisions and which have primary responsibility for protecting water quality in California. The State Water Board provides program guidance and oversight, allocates funds, and reviews Regional Water Boards decisions. In addition, the State Water Board allocates rights to the use of surface water. The Regional Water Boards have primary responsibility for individual permitting, inspection, and enforcement actions within each of nine hydrologic regions. The State Water Board and Regional Water Boards have numerous non-point source (NPS) related responsibilities, including monitoring and assessment, planning, financial assistance, and management.

The Regional Water Boards regulate discharges under the Porter-Cologne Act primarily through issuance of NPDES permits for point source discharges and waste discharge requirements (WDRs) for NPS discharges. Anyone discharging or proposing to discharge materials that could affect water quality (other than to a community sanitary sewer system regulated by an NPDES permit) must file a report of waste discharge. The Storm Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCBs) can make their own investigations or may require dischargers to carry out water quality investigations and report on water quality issues. The Porter-Cologne Act provides several options for enforcing WDRs and other orders, including cease and desist orders, cleanup and abatement orders, administrative civil liability orders, civil court actions, and criminal prosecutions.



The Porter-Cologne Act also implements many provisions of the Clean Water Act, such as the NPDES permitting program. The Porter-Cologne Act also requires adoption of water quality control plans that contain the guiding policies of water pollution management in California. In addition, regional water quality control plans (basin plans) have been adopted by each of the Regional Water Boards and get updated as necessary and practical. These plans identify the existing and potential beneficial uses of waters of the State and establish water quality objectives to protect these uses. The basin plans also contain implementation, surveillance, and monitoring plans. The Project site is located in the Santa Ana River Watershed which is within the purview of Santa Ana RWQCB. The Santa Ana RWQCB's *Santa Ana River Basin Water Quality Control Plan* is the governing water quality plan for the region.

2. *California Water Code*

The California Water Code is the principal state law regulating water quality in California. Water quality provisions must be complied with as contained in numerous code sections including: 1) the Health and Safety Code for the protection of ground and surface waters from hazardous waste and other toxic substances; 2) the Fish and Game Code for the prevention of unauthorized diversions of any surface water and discharge of any substance that may be deleterious to fish, plant, animal, or bird life; 3) the Harbors and Navigation Code for the prevention of the unauthorized discharge of waste from vessels into surface waters; and 4) the Food and Agriculture Code for the protection of groundwater which may be used for drinking water supplies. The California Department of Fish and Wildlife (CDFW), through provisions of the Fish & Game Code (Sections 1601-1603) is empowered to issue agreements for any alteration of a river, stream, or lake where fish or wildlife resources may be adversely affected. CDFW regulates wetland areas only to the extent that those wetlands are part of a river, stream, or lake as defined by CDFW.

Surface water quality is the responsibility of the Regional Water Quality Control Board (RWQCB), water supply and wastewater treatment agencies, and city and county governments. The principal means of enforcement by the RWQCB is through the development, adoption, and issuance of water discharge permits. RWQCB basin plans establish water quality objectives that are defined as the limits or levels of water quality constituents or characteristics for the reasonable protection of beneficial uses of water.

3. *California Toxics Rule (CTR)*

The California Toxics Rule (CTR) fills gap in California's water quality standards necessary to protect human health and aquatic life beneficial uses. The CTR criteria are similar to those published in the National Recommended Water Quality Criteria. The CTR supplements, and does not change or supersede, the criteria that EPA promulgated for California waters in the National Toxics Rule (NTR). The human health NTR and CTR criteria that apply to drinking water sources (those water bodies designated in the Basin Plans as municipal and domestic supply) consider chemical exposure through consumption of both water and aquatic organisms (fish and shellfish) harvested from the water. For waters that are not drinking water sources (e.g., enclosed bays and estuaries), human health NTR and CTR criteria only consider the consumption of contaminated aquatic organisms. The CTR and NTR criteria, along with the beneficial use designations in the Basin Plans and the related implementation policies, are the directly applicable water quality standards for toxic priority pollutants in California waters (SWRCB, 2016, pp. 14-15).



4. *Watershed Management Initiative (WMI)*

The State and Regional Water Boards are currently focused on looking at entire watersheds when addressing water pollution. The Water Boards adopted the Watershed Management Initiative (WMI) to further their goals. The WMI establishes a broad framework overlying the numerous federal and State mandated priorities. As such, the WMI helps the Water Boards achieve water resource protection, enhancement and restoration while balancing economic and environmental impacts (SWRCB, 2017). The integrated approach of the WMI involves three main ideas:

- Use water quality to identify and prioritize water resource problems within individual watersheds. Involve stakeholders to develop solutions.
- Better coordinate point source and nonpoint source regulatory efforts. Establish working relationships between staff from different programs.
- Better coordinate local, state, and federal activities and programs, especially those relating to regulations and funding, to assist local watershed groups.

5. *Sustainable Groundwater Management Act (SGMA)*

The California Department of Water Resources' (DWR's) 2014 Sustainable Groundwater Management Act (SGMA) requires local public agencies and Groundwater Sustainability Agencies (GSAs) in "high"- and "medium"-priority basins to develop and implement Groundwater Sustainability Plans (GSPs) or Alternatives to GSPs (DWR, 2019). The DWR categorizes the priority of groundwater basins. The DWR categorizes the priority of groundwater basins (DWR, 2018). GSPs are detailed road maps for how groundwater basins will reach long term sustainability. Section 10720.8(a) of the SGMA exempts adjudicated basins from the SGMA's requirement to prepare a GSP (DWR, 2016b).

C. Local Plans, Policies, and Regulations

1. *Moreno Master Drainage Plan*

The Project site is located within the boundary of the Moreno Master Drainage Plan (MDP). The Moreno MDP was prepared by the Riverside County Flood Control and Water Conservation District (RCFCWCD), to identify master-planned drainage and flood control facilities that are needed in the Project area to safely convey the peak runoff of a 100-year frequency storm (RCFCWCD, 2015). Per the Moreno MDP, drainage flows from the Project site are planned to outlet to the Line "F-2" storm drain located beneath Redlands Boulevard, which conveys flows to an existing drainage channel south of Brodiaea (Line "F") (Thienes, 2019a; Thienes, 2020a).

2. *City of Moreno Valley Municipal Code*

Chapter 8.10 *et seq.* (Stormwater/Urban Runoff Management and Discharge Controls) and Section 8.21.170 (National Pollutant Discharge Elimination Systems) of the City of Moreno Valley Municipal Code requires the City to participate as a "Co-permittee" under the NPDES permit program to accomplish the requirements of the CWA (Moreno Valley, n.d.). Pursuant to this chapter, the City is required to participate in the



improvement of water quality and comply with federal requirements for the control of urban pollutants to stormwater runoff.

3. SCAQMD Rule 403 (Fugitive Dust)

SCAQMD Rule 403 (Fugitive Dust) requires the implementation of best available dust control measures (BACM) during active operations capable of generating fugitive dust (SCAQMD, 2005). The purpose of this Rule is to minimize the amount of particulate matter in the ambient air as a result of anthropogenic fugitive dust sources.

4.9.3 BASIS FOR DETERMINING SIGNIFICANCE

The Project would result in a significant impact to hydrology and water quality if the Project or any Project-related component would:

- a. *Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality;*
- b. *Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;*
- c. *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner which would:*
 - i. *Result in substantial erosion or siltation on- or off-site*
 - ii. *Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site*
 - iii. *Create or contribute runoff which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;*
 - iv. *Impede or redirect flood flows;*
- d. *Result in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation; or*
- e. *Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.*

The above-listed thresholds are referenced in the *City of Moreno Valley Rules and Procedures for the Implementation of the California Environmental Quality Act* and address the typical, adverse effects related to hydrology and water quality that could result from development projects.

4.9.4 IMPACT ANALYSIS

The analysis provided on the following pages addresses the potential hydrology and water quality impacts could result from implementation of the proposed warehouse distribution/logistics facility and the conceptual fulfillment/e-commerce facility site plans described in EIR Section 3.0, *Project Description*. Except where specifically noted herein, implementation of the Project for either warehouse distribution/logistics or fulfillment/e-commerce uses would result in similar hydrology and water quality impacts.



Threshold a: Would the Project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

The Project would be required to comply with Section 402 of the Clean Water Act, which authorizes the National Pollution Discharge Elimination System (NPDES) permit program that covers point sources of pollution discharging to a water body. The NPDES program also requires operators of construction sites one-acre or larger to prepare a Storm Water Pollution Prevention Plan (SWPPP) and obtain authorization to discharge stormwater under an NPDES construction stormwater permit. The Project also would be required to comply with the California Porter-Cologne Water Quality Control Act (Section 13000 et seq., of the California Water Code), which requires that comprehensive water quality control plans be developed for all waters within the State of California. The Project site is located within the jurisdiction of the Santa Ana RWQCB.

A. Construction-Related Water Quality Impacts

Construction of the Project would involve demolition, site preparation, pile driving, grading, building construction, paving, and the application of architectural coatings. Construction activities have the potential to result in water quality pollutants such as silt, debris, adhesives, paints, and other chemicals with the potential to adversely affect water quality. As such, short-term water quality impacts have the potential to occur during Project construction in the absence of any protective or avoidance measures.

Pursuant to the requirements of the Santa Ana RWQCB and the City Moreno Valley (Municipal Code Chapter 8.10 et seq. and Section 8.21.170), the Project would be required to obtain coverage under the State’s General Construction Storm Water Permit (NPDES Permit). The NPDES permit is required for all projects that include construction activities, such as clearing, soil stockpiling, grading, and/or excavation that disturb at least one (1) acre of total land area. In addition, the Project would be required to comply with the Santa Ana RWQCB’s *Santa Ana River Basin Water Quality Control Program*. Compliance with the NPDES permit and the *Santa Ana River Basin Water Quality Control Program* involves the preparation and implementation of a SWPPP for construction-related activities, including grading. The SWPPP will specify the Best Management Practices (BMPs) that the Project would be required to implement during construction activities to ensure that all potential pollutants of concern are prevented, minimized, and/or otherwise appropriately treated prior to being discharged from the subject property. Examples of BMPs that may be utilized during construction include, but are not limited to, sandbag barriers, geotextiles, storm drain inlet protection, sediment traps, rip rap soil stabilizers, and hydro-seeding. Mandatory compliance with the SWPPP would ensure that the Project’s construction does not violate any water quality standards or waste discharge requirements. Therefore, water quality impacts associated with construction activities would be less than significant and no mitigation measures would be required.

B. Post-Development Water Quality Impacts

Stormwater pollutants that may be produced during Project operation include metals, nutrients, pesticides, toxic organic compounds, sediments, trash and debris, and oil and grease; however, the potential waterborne pollutants generated by the Project would not contribute to existing Section 303(d) impairments of downstream receiving waters and thus would not be considered “pollutants of concern” (Thienes, 2019b, p. 22; Thienes, 2020b, p. 23).



The Project Applicant would be required to implement a Water Quality Management Plan (WQMP) to demonstrate compliance with the City’s NPDES municipal stormwater permit, and to minimize the release of potential waterborne pollutants, including pollutants of concern for downstream receiving waters. The WQMP is a site-specific post-construction water quality management program designed to address the pollutants of concern of a development project via BMPs, implementation of which ensures the on-going protection of the watershed basin. The Project’s Preliminary WQMP, prepared by Thienes, is included as *Technical Appendix J2* to this EIR and the Preliminary WQMP for the conceptual fulfillment/e-commerce site plan is included as *Technical Appendix J4* to this EIR. As identified in *Technical Appendices J2* and *J4*, the Project is designed to include structural source control BMPs (including water quality/detention basins) as well as operational source control BMPs (including but not limited to: the installation of water-efficient landscape irrigation systems, storm drain system stenciling and signage, and implementation of a trash and waste storage areas) to minimize, prevent, and/or otherwise appropriately treat stormwater runoff flows before they are discharged into the municipal storm drain system (Thienes, 2019b, pp. 7, 26-27; Thienes, 2020b, pp. 7, 27-28). Compliance with the WQMP would be required as a condition of Project approval pursuant to Municipal Code Chapter 8.10 and Municipal Code Section 8.21.170, and long-term maintenance of on-site BMPs would be required to ensure their long-term effectiveness. Therefore, water quality impacts associated with long-term operational activities would be less than significant.

Additionally, the NPDES program requires certain land uses, including the industrial land uses proposed by the Project, to prepare a SWPPP for operational activities and to implement a long-term water quality sampling and monitoring program, unless an exemption has been granted. On April 1, 2014, the California State Water Resources Control Board adopted an updated new NPDES permit for storm water discharge associated with industrial activities (referred to as the “Industrial General Permit”) (SWRCB, 2014b). The new Industrial General Permit, which is more stringent than the former Industrial General Permit, became effective on July 1, 2015. Under this currently effective NPDES Industrial General Permit, the Project Applicant would be required to prepare a SWPPP for operational activities and implement a long-term water quality sampling and monitoring program or receive an exemption. Because the permit is dependent upon a detailed accounting of all operational activities and procedures, and the Project’s building users and their operational characteristics are not known at this time, details of the operational SWPPP (including BMPs) or potential exemption to the SWPPP operational activities requirement cannot be determined with certainty at this time. However, based on the performance requirements of the NPDES Industrial General Permit, the Project’s mandatory compliance with all applicable water quality regulations would further reduce potential water quality impacts during long-term operation.

Based on the foregoing analysis, the Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality during long-term operation. Impacts would be less than significant.

Threshold b: Would the Project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?

The Project would be served with potable water by the EMWD and would not utilize wells or any other groundwater extractive activities. The existing water well located on the Project site as well as any other



potential wells found on the site during the construction process would be capped and abandoned in accordance with State and local regulations. The EMWD relies on local potable groundwater as a source of its water supply (in addition to imported water from the Metropolitan Water District of Southern California, desalted ground water, and recycled water). As determined in the Project’s Water Supply Assessment, which is provided as *Technical Appendix M* to this EIR, EMWD would have adequate water supply, including groundwater resources, to serve the Project in addition to past, present, and future commitments (EMWD, 2020, p. 20). Accordingly, implementation of the proposed Project has no potential to extract or consume a substantial quantity of groundwater and the Project’s direct impact to groundwater supplies would be less than significant.

Development of the Project would increase impervious surface coverage on the property, which would reduce the amount of water percolating down into the underground aquifer that underlies the Project site. However, and as noted in the City’s General Plan EIR, “the impact of an incremental reduction in groundwater would not be significant as domestic water supplies are not reliant on groundwater as a primary source” (Moreno Valley, 2006b, p. 5.7-12). Additionally, the Project includes design features that would maximize the percolation of rainfall into the groundwater basin, such as the proposed water quality/detention basin and proposed permeable landscape areas. With buildout of the Project, the local groundwater levels would not be adversely affected. Accordingly, buildout of the Project would not interfere substantially with groundwater recharge.

For the reasons stated above, the Project would neither substantially deplete groundwater supplies nor interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. Impacts would be less than significant.

Threshold c: *Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner which would:*

- i. Result in substantial erosion or siltation on- or off-site?*
- ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?*
- iii. Create or contribute runoff which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?*
- iv. Impede or redirect flood flows?*

Implementation of the Project would alter the existing ground contours of the Project site and result in the installation of impervious surfaces, which would result in changes to the site’s existing, internal drainage patterns. As described in detail in EIR Section 3.0, *Project Description*, the Project would include the installation of an integrated, on-site system of underground storm drain pipes, catch basins, and a water quality/detention to capture on-site stormwater runoff flows, convey the runoff across the site, and treat the runoff to minimize the amount of water-borne pollutants carried from the Project site. (As noted in EIR Section 3.0, under the conceptual fulfillment/e-commerce site plan, multiple, smaller water quality/detention basins – including one underground basin – would be constructed in place of the one large basin proposed by the



warehouse distribution/logistics site plan.) Upon development of the Project, all stormwater from the Project site would be discharged to a public storm drain beneath Redlands Boulevard that would be upgraded as part of the Project in accordance with the Moreno MDP. Figure 4.9-2 and Figure 4.9-3 illustrate the post-development drainage conditions on the Project site under the proposed site plan and the conceptual fulfillment/e-commerce site plan, respectively.

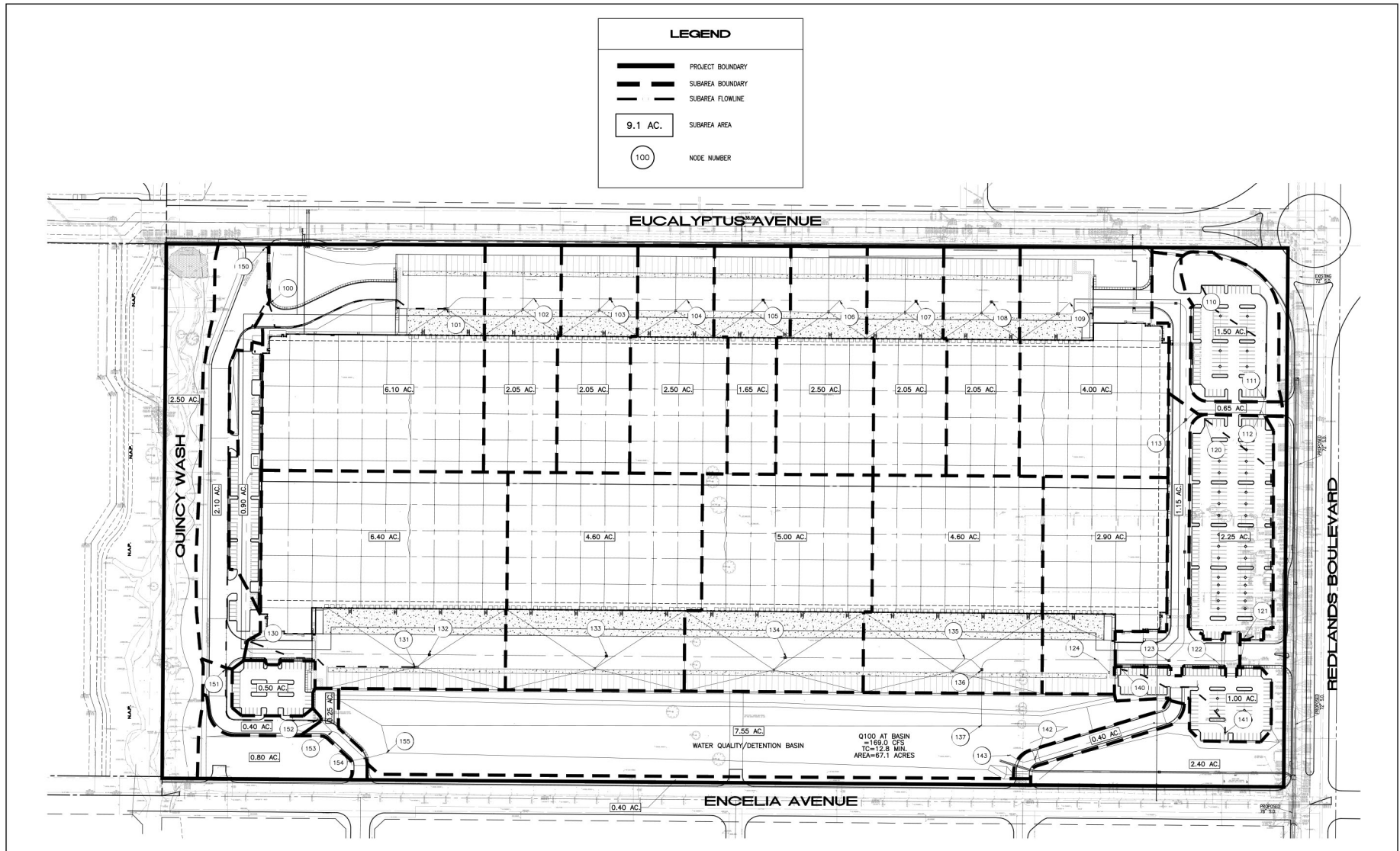
The following analysis evaluates the potential for Project-related development activities to adversely affect water quality or cause or exacerbate local flooding.

A. *Erosion and Siltation*

Although the Project would alter the subject property's interior drainage patterns, such changes would not result in substantial erosion or siltation on- or off-site.

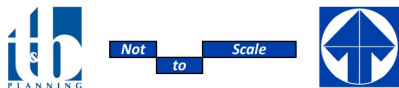
Pursuant to the requirements of the State Water Resources Control Board, the Project Applicant would be required to obtain coverage under the State's General Construction Storm Water Permit for construction activities (NPDES permit). The NPDES permit is required for all development projects that include construction activities, such as clearing, grading, and/or excavation, that disturb at least one (1) acre of total land area. In addition, the Project would be required to comply with the Santa Ana RWQCB's *Santa Ana River Basin Water Quality Control Program*. Compliance with the NPDES permit and the *Santa Ana River Basin Water Quality Control Program* involves the preparation and implementation of a SWPPP for construction-related activities. The SWPPP will specify the Best Management Practices (BMPs) that would be required to be implemented during construction activities to ensure that waterborne pollution – including erosion/siltation – is prevented, minimized, and/or otherwise appropriately treated prior to surface runoff being discharged from the subject property. Examples of BMPs that may be utilized during construction include, but are not limited to, sandbag barriers, geotextiles, storm drain inlet protection, sediment traps, rip rap soil stabilizers, and hydro-seeding. Lastly, the Project would be required to implement an erosion control plan pursuant to Moreno Valley Municipal Code Section 8.21.160 and to ensure compliance with SCAQMD Rule 403 to minimize water- and windborne erosion. Mandatory compliance with the SWPPP and the City-required erosion control plan would ensure that Project construction activities would not result in substantial erosion or sedimentation.

Upon Project buildout, the Project Applicant would be required to implement a WQMP, which is a site-specific post-construction water quality management program that will be implemented to minimize erosion and siltation, pursuant to Moreno Valley Municipal Code Section 8.10.050. The WQMP is required to identify an effective combination of erosion control and sediment control measures (i.e., Best Management Practices) to reduce or eliminate sediment discharge to surface water from storm water and non-storm water discharges. The WQMP also is required to establish a post-construction implementation and maintenance plan to ensure on-going, long-term erosion protection. Compliance with the WQMP will be required as a condition of approval for the Project, as will the long-term maintenance of erosion and sediment control features. The preliminary WQMP for the Project is provided as *Technical Appendix J2* to this EIR and the preliminary WQMP for the conceptual fulfillment/e-commerce site plan is provided as *Technical Appendix J4* to this EIR. Because the Project would be required to utilize erosion and sediment control measures to preclude substantial,

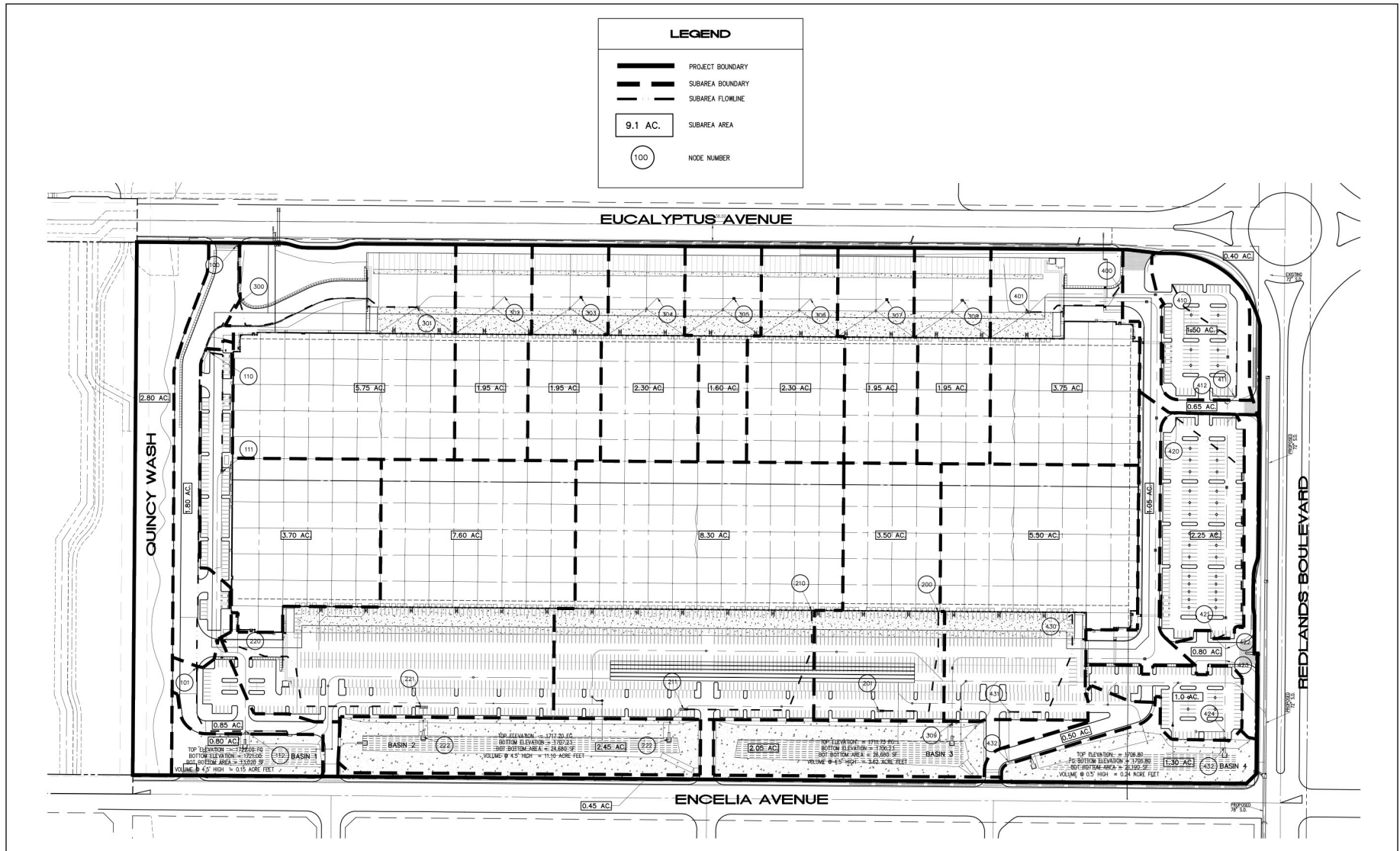


Source(s): Thienes Engineering, Inc. (10-28-2019)

Figure 4.9-2



Proposed Post-Development Hydrology Map



Source(s): Thienes Engineering, Inc. (02-05-2020)

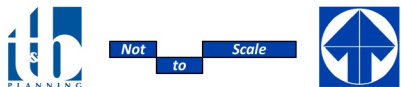


Figure 4.9-3
Conceptual Post-Development Hydrology Map
for Fulfillment/E-Commerce Site Plan



long-term soil erosion and loss of topsoil, Project operation would result in less-than-significant impacts related to soil erosion and sedimentation.

B. On- or Off-Site Flooding

During a peak storm event (100-year event, 1-hour storm), the Project site contributes 131.5 cubic feet per second (cfs) of stormwater runoff under existing conditions to the existing storm drain beneath Redlands Boulevard (via Encelia Avenue as surface sheet flow) (Thienes, 2019a; Thienes, 2020a). Upon Project buildout, all on-site storm runoff would be conveyed to the proposed on-site water quality/detention basin in the southern portion of the site (or the multiple on-site water quality/detention basins provided for the conceptual fulfillment/e-commerce site plan). The water quality/detention basins contain design features that would control the discharge of stormwater runoff from the site so that peak discharge does not exceed existing peak flows (Thienes, 2019a; Thienes, 2020a). From the on-site water quality/detention basin, stormwater runoff would be conveyed to a storm drain line beneath Redlands; the Project site would no longer discharge stormwater runoff to Encelia Avenue (ibid.). Abutting the Project site, the storm drain line beneath Redlands Boulevard (Line F-2 of the Moreno MDP) would be replaced with a new pipe segment that is sized per the Moreno MDP to adequately convey ultimate future stormwater runoff from the Project site in addition to upstream areas (ibid.). This new pipe segment would continue beneath Redlands Boulevard to Dracaea Avenue, where it would connect to an existing storm drain line. The existing storm drain line at Dracaea Avenue is constructed at an interim, and not ultimate, size and does not have adequate capacity to accommodate peak runoff flows under existing conditions; during heavy rainfall events, some flows are conveyed via the storm drain line to an existing channel south of Brodiaea Avenue (Line F of the Moreno MDP) while overflow drains to the street and flows south within Redlands Boulevard to Line F (Thienes, 2021). The Project would provide a relief system at the connection point of the new and existing storm drain lines beneath Redlands Boulevard to ensure that any flows that cannot be conveyed south of Dracaea Avenue by the existing storm drain line would discharge to Redlands Boulevard and flow south along the street as surface sheet flow, similar to what occurs under existing conditions, until the time the remaining segments of Line F-2 are upgraded to the ultimate size planned by the Moreno MDP (ibid.). Because the Project would not increase the rate or amount of stormwater runoff discharged from the Project site or in the Project area above existing levels under either the proposed warehouse distribution/logistics or conceptual fulfillment/e-commerce site plans, implementation of the Project would not result in flooding on- or off-site. Impacts would be less than significant.

C. Stormwater Drainage System Capacity and Polluted Runoff

Moreno MDP Line F-2 does not have adequate capacity south of Dracaea Avenue to capture and convey peak stormwater runoff flows to Moreno MDP Line F under existing conditions because this storm drain pipe segment has not yet been constructed to its ultimate size as planned by the Moreno MDP. As a result, during heavy rain events, stormwater runoff flows that exceed the available capacity of Line F-2 travel south along Redlands Boulevard as surface sheet flow before discharging into Line F south of Brodiaea Avenue. Storm water runoff from the Project site is directed to Line F-2 at Dracaea Avenue under existing conditions and, as noted in the analysis above, implementation of the Project would not increase the rate or volume of stormwater discharged from the Project site during peak storm events relative to existing conditions. Thus, because the Project site already discharges to Line F-2 under existing conditions and because the Project would not increase



the rate or amount of stormwater runoff leaving the Project site during heavy rain events, implementation of the Project would not represent a substantial alteration to the existing drainage pattern of the area and the Project would not substantially increase downstream risks related to flooding due to insufficient capacity within Line F-2 (Thienes, 2021). Implementation of the Project would result in a less than significant impact.

As discussed in the response to Threshold “a,” the Project’s construction contractors would be required to comply with a SWPPP and the Project’s owner or operator would be required to comply with the applicable Preliminary WQMP (*Technical Appendix J2 or J4*) to ensure that Project-related construction activities and operational activities do not result in substantial amounts of polluted runoff. The Project would not result in substantial additional sources of polluted runoff and impacts would be less than significant.

D. Flood Flows

According to the FEMA FIRM No. 06065C0770G, dated August 28, 2008, the Project site is located within a 500-year floodplain, which is not considered a special flood hazard area (FEMA, 2008). Accordingly, the Project site is not expected to be inundated by flood flows during the lifetime of the Project and the Project would not impede flood flows. No impact would occur.

Threshold d: Would the Project result in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

The Pacific Ocean is located over 45 miles southwest of the Project site; consequently, there is no potential for the Project site to be impacted by a tsunami as tsunamis typically only reach up to a few miles inland. The Project site also is not subject to flooding hazards associated with a seiche because the nearest large body of surface water (Lake Perris) is located approximately 4.0 miles south of the Project site, which is too far away from the subject property to impact the property with a seiche (Google Earth Pro, 2020). Furthermore, as noted in the City of Moreno Valley General Plan and General Plan EIR, the Project site is not located within any mapped dam inundation area (Moreno Valley, 2006b, Figure 5.5-2; Moreno Valley, 2006a, Figure 6-4). Accordingly, the Project would not release water pollutants due to inundation. No impact would occur.

Threshold e: Would the Project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

As previously discussed in the response to Threshold “a,” the Project site is located within the Santa Ana River Basin and Project-related construction and operational activities would be required to comply with the Santa Ana RWQCB’s *Santa Ana River Basin Water Quality Control Plan* by preparing and adhering to a SWPPP and WQMP. Implementation of the Project would not conflict with or obstruct the *Santa Ana River Basin Water Quality Control Plan* and impacts would be less than significant.

The Project site is located within the Perris North Groundwater Basin, which part of the West San Jacinto Groundwater Management area of the larger San Jacinto Groundwater Basin. As noted previously in the response to Threshold “b,” implementation of the Project would not result in substantial adverse effects to local groundwater supplies or groundwater recharge. Thus, no component of the Project would obstruct with or prevent implementation of the management plan for the San Jacinto Groundwater Basin. As such, the



Project's construction and operation would not conflict with any sustainable groundwater management plan. Impacts would be less than significant.

4.9.5 CUMULATIVE IMPACTS

The cumulative impact analysis considers construction and operation of the Project in conjunction with other development projects in the vicinity of the Project site and projects located in the Santa Ana River Basin and Perris North Groundwater Basin.

A. Water Quality

Project construction and the construction of other projects in the cumulative study area would have the potential to contribute waterborne pollution, including erosion and siltation, to the Santa Ana River Watershed. Pursuant to the requirements of the State Water Resources Control Board and the Santa Ana RWQCB, all construction projects that disturb one (1) or more acres of land area are required to obtain coverage for construction activities under the State's General Construction NPDES Permit. In order to obtain coverage, an effective site-specific SWPPP is required to be developed and implemented. The SWPPP must identify potential on-site pollutants and identify an effective combination of erosion control and sediment control measures to reduce or eliminate discharge of pollutants to surface waters. In addition, the Project Applicant and all cumulative developments in the Santa Ana River Basin would be required to comply with the Santa Ana RWQCB's *Santa Ana River Basin Water Quality Control Program*, which establishes water quality standards for ground and surface waters of the region. Compliance with these mandatory regulatory requirements, would ensure that development projects within the Santa Ana River watershed, including the proposed Project, would not contribute substantially to water quality impairments during construction.

Operational activities on the Project site would be required to comply with the Project's WQMP to minimize the amount of waterborne pollution, including erosion and sediment, discharged from the site. Other development projects within the watershed would similarly be required by law to prepare and implement site-specific WQMPs to ensure that runoff does not substantially contribute to water quality violations. Accordingly, operation of the Project would not contribute to cumulatively-considerable water quality effects.

B. Groundwater Supplies and Management

Although the Project would increase impervious surface coverage on the site, the Project incorporates design features that would allow surface runoff to infiltrate into the groundwater basin. Other development projects would similarly be required by applicable lead agencies to incorporate design features that facilitate percolation (e.g., through minimum landscaped/permeable area requirements, water quality/detention basins, infiltration basins). Also, as previously noted, the City's General Plan EIR evaluated potential impacts to the groundwater basins beneath the City and concluded that the incremental reduction in groundwater would not be significant as domestic water supplies are not reliant on groundwater as a primary source (City of Moreno Valley, 2006, pp. 5.7-12). No component of the Project would obstruct with or prevent implementation of the applicable groundwater management plan (West San Jacinto Groundwater Basin Management Plan) and other development projects within the San Jacinto Groundwater Basin would be prohibited from any activity that would endanger the health and sustainability of the groundwater basin. Based on the lack of impacts to groundwater, the provision of design measures that would facilitate percolation, and compliance with



applicable San Jacinto Groundwater Basin management plans, cumulative development would not result in a considerable, adverse effect to local groundwater supplies.

C. Flooding

Construction of the Project and other development projects within the Santa Ana River Basin would be required to comply with federal, State, and local regulations and applicable regional and local master drainage plans in order to mitigate flood hazards both on- and off-site. Compliance with federal, State, and local regulations and applicable drainage plans would require development sites to be protected from flooding during peak storm events (i.e., 100-year storm) and also would not allow development projects to expose downstream properties to increased flooding risks during peak storm events. In addition, future development proposals within the Santa Ana River Basin would be required to prepare hydrologic and hydraulic calculations, subject to review and approval by the responsible City/County Engineer, to demonstrate that substantial on- and/or off-site flood hazards would not occur. As discussed under the response to Threshold “c,” the Project is designed to ensure that runoff from the Project site during peak storm events is substantially reduced relative to existing conditions. Because the Project and all other developments throughout the Santa Ana River Basin, would need to comply with federal, State, and local regulations to ensure that stormwater discharges do not substantially exceed existing volumes or exceed the volume of available conveyance infrastructure, a substantial cumulative impact related to flood hazards would not occur.

Additionally, the Project site is not located within a special flood hazard area or in an area subject to inundation. Accordingly, development on the Project site would have no potential to impede or redirect flood flows and a cumulatively-considerable impact would not occur.

4.9.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold a: Less-than-Significant Impact. The Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. Adherence to a SWPPP and WQMP is required as part of the Project’s implementation to address construction- and operational-related water quality.

Threshold b: Less-than-Significant Impact. The Project would not physically impact any of the major groundwater recharge facilities in the Perris North Groundwater Basin. The Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project would impede sustainable groundwater management of the Perris North Groundwater Basin.

Threshold c: Less-than-Significant Impact. The Project Applicant would be required to comply with applicable water quality regulatory requirements to minimize erosion and siltation. Additionally, the Project would not result in flooding on- or off-site or impede/redirect flood flows. Lastly, the Project would not create or contribute to increased flooding risks due to insufficient capacity of existing or planned stormwater drainage systems or and would not provide substantial additional sources of polluted runoff.

Threshold d: No Impact. The Project site would not be subject to inundation from tsunamis, seiches, or other hazards.



Threshold e: Less-than-Significant Impact. The Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

4.9.7 MITIGATION

Impacts would be less than significant; therefore, mitigation is not required.



4.10 LAND USE & PLANNING

This Subsection discusses the Project’s consistency with applicable land use and planning policies adopted by the City of Moreno Valley and other governing agencies for the purpose of reducing adverse effects on the environment. Information used to support the analysis in this Subsection was obtained primarily from the City of Moreno Valley General Plan (Moreno Valley, 2006a), City of Moreno Valley Zoning Ordinance (Moreno Valley, 2018), Southern California Association of Governments (SCAG) *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)* (SCAG, 2016), and SCAG’s *2020-2045 RTP/SCS* (hereafter, “Connect SoCal”) (SCAG, 2020b). Refer to Section 7.0, *References*, for a complete list of reference sources.

4.10.1 EXISTING CONDITIONS

A. Existing Land Use and Development

Under existing conditions, the Project site is mainly vacant and undeveloped, except for an approximately 8.5-acre active plant nursery (Adam Hall’s Plant Nursery) and associated structures (i.e., one [1] office building, shade and storage structures), and three (3) residential buildings with associated garages and storage sheds at the southeast corner of the Project site. A natural meandering dirt channel (Quincy Channel) is located along the western Project site boundary and enters the Project site from the northwest through a culvert and flows in a southerly direction for 1,487 linear feet before continuing off-site to the south past Encelia Avenue.

As shown on Figure 2-1, *Surrounding Land Uses*, Eucalyptus Avenue abuts the Project site to the north. North of Eucalyptus Avenue is a warehouse distribution center (Aldi Distribution Center). Encelia Avenue abuts the Project site on the south. South of Encelia Avenue is a residential community and vacant, undeveloped land. Immediately west of the Project site is a meandering dirt channel (Quincy Channel). Further west are vacant, undeveloped parcels. Immediately east of the Project site is Redlands Boulevard. Farther east (beyond Redlands Boulevard) are vacant, undeveloped parcels that are within the approved World Logistics Center Specific Plan and are planned for industrial use.

4.10.2 REGULATORY SETTING

The following is a brief description of the federal, State, and local environmental laws and related regulations related to land use and planning.

A. State Plans, Policies, and Regulations

1. California Planning and Zoning Law

The legal framework in which California cities and counties exercise local planning and land use functions is set forth in the California Planning and Zoning Law, §§ 65000 - 66499.58. Under State of California planning law, each city and county must adopt a comprehensive, long-term general plan. State law gives cities and counties wide latitude in how a jurisdiction may create a general plan, but there are fundamental requirements that must be met. These requirements include the inclusion of seven mandatory elements described in the Government Code, including a section on land use. Each of the elements must contain text and descriptions



setting forth objectives, principles, standards, policies, and plan proposals; diagrams and maps that incorporate data and analysis; and mitigation measures.

2. *Office of Planning and Research (OPR) General Plan Guidelines*

Each city and county in California must prepare a comprehensive, long term general plan to guide its future. To assist local governments in meeting this responsibility, the Governor’s Office of Planning and Research (OPR) is required to adopt and periodically revise guidelines for the preparation and content of local general plans pursuant to Government Code § 65040.2 (OPR, 2017, p. 1). The General Plan Guidelines is advisory, not mandatory (ibid.). Nevertheless, it is the State’s only official document explaining California’s legal requirements for general plans. Planners, decision-making bodies, and the public depend upon the General Plan Guidelines for help when preparing local general plans. The courts have periodically referred to the General Plan Guidelines for assistance in determining compliance with planning law. For this reason, the General Plan Guidelines closely adheres to statute and case law. It also relies upon commonly accepted principles of contemporary planning practice.

B. Local Plans, Policies, and Regulations

1. City of Moreno Valley General Plan

At the time this EIR was prepared, the City of Moreno Valley had initiated a comprehensive General Plan Update; however, the General Plan Update had not been approved. The draft General Plan and associated Environmental Impact Report was released for public review on April 2, 2021. Therefore, the 2006 General Plan is the applicable General Plan for purposes of analysis herein. The City of Moreno Valley General Plan (adopted July 11, 2006) is a policy document that reflects the City’s vision for the future of Moreno Valley. The General Plan is organized into seven (7) separate elements that contain a series of policies to guide the City’s vision for future development. Each of the elements from the City of Moreno Valley 2006 General Plan are summarized below:

Community Development

The Community Development Element functions as a land use guide for future development in the City. The Element identifies the general distribution, general location, and extent of land uses, such as housing, business, industry, open space, recreation, floodplains, and public facilities. These designations are reflected on the General Plan Land Use Map, which are applied on a parcel-by-parcel basis throughout the City. The Community Development Element also provides standards for residential density and non-residential intensity. It governs how land is to be used; therefore, many of the issues and policies contained in other elements of the General Plan are linked in some degree to this Element.

The Community Development Element designates the Project site for “Residential: Max 2 du/ac (R2)” land uses. The “R2” land use designation is intended to provide for suburban lifestyles on residential lots larger than commonly available in suburban subdivisions and to provide a rural atmosphere. The maximum allowable density for “R2” land uses is 2.0 dwelling units per acre.



Parks, Recreation, and Open Space

The Parks, Recreation and Open Space Element includes specific policies related to open space preservation, outdoor recreation and recreation facilities, and trails.

Circulation

The purpose of the Circulation Element is to develop a safe, efficient, environmentally and financially sound, integrated vehicular circulation system. It also is intended to provide for safe and adequate non-vehicular transportation, including pedestrian, bicycle, and public transportation systems.

Safety

The goal of the Safety Element is to assist the City in achieving acceptable levels of protection from natural and man-made hazards to life, health, and property, and to ensure that emergency services in the City are adequate to meet the City’s needs during both minor emergencies and major catastrophic situations.

Conservation

The Conservation Element is intended to achieve the wise use of natural resources within the City and immediate environs. Issues addressed by the Conservation Element include erosion, water quality and supply, biological resources and associated habitat, energy conservation, historical/archaeological resources, visual quality, and solid waste and recycling.

Housing

The Housing Element identifies and establishes the City’s policies with respect to meeting the needs of existing and future residents of the City. Specific components of the Housing Element, which also are requirements of State law, include the following: an assessment of housing needs and inventory; an analysis and program for preserving assisted housing developments; a statement of community goals, quantified objectives, and policies relative to the maintenance, preservation, improvement, and development of housing; and a program which sets forth a five-year schedule of actions that the City is undertaking, or intends to undertake, to implement the policies set forth in the Housing Element.

2. *City of Moreno Valley Zoning Ordinance*

Development of the Project site is regulated by the development regulations and design standards contained within the City’s Zoning Ordinance. The City of Moreno Valley’s Zoning Ordinance is contained as Chapter 9 of the City of Moreno Valley Municipal Code. Under existing conditions, the entire Project site is zoned “Residential Agriculture 2 (RA2) District.” According to the City of Moreno Valley Municipal Code, the primary purpose of the “RA2” zoning district is to provide for suburban life-styles on residential lots larger than are commonly available in suburban subdivisions and to provide for and protect the rural and agricultural atmosphere, including the keeping of animals, that have historically characterized these areas (Moreno Valley, 2018). This district is intended as an area for development of large lot, single-family residential development at a maximum allowable density of two dwelling units (DU) per net acre (ibid.).



The City of Moreno Valley’s Zoning Ordinance also applies the “Primary Animal Keeping Overlay (PAKO)” zoning overlay to the Project site. The PAKO is intended to maintain animal keeping and the rural character of the area noted within the overlay district and designates a portion of the parcel for medium and large animal keeping (Moreno Valley, 2018). Any proposed development within the PAKO must comply with City Zoning Ordinance Section 9.07.080, *Primary Animal Keeping Overlay (PAKO)*.

3. *City of Moreno Valley Bicycle Master Plan*

The City of Moreno Valley Bicycle Master Plan, adopted in January 2015, identifies deficiencies and opportunities in the City’s existing bicycle facility system and presents a long-range plan for the provision of a safe, convenient and efficient environment for bicycle travel in Moreno Valley. On and surrounding the Project site, the Plan calls for a Class 2 bike lane along Eucalyptus Avenue and Redlands Boulevard (Moreno Valley, 2015, Figure 15). Refer to EIR Subsection 4.12, *Transportation*, for an analysis of the Project’s consistency with the City of Moreno Valley Bicycle Master Plan.

4. *SCAG Regional Transportation Plan and Sustainable Communities Strategy*

The Southern California Association of Governments (SCAG) is a Joint Powers Authority (JPA) under California State law, established as an association of local governments and agencies that voluntarily convene as a forum to address regional issues (SCAG, 2016). Under federal law, SCAG is designated as a Metropolitan Planning Organization (MPO) and under State law as a Regional Transportation Planning Agency and a Council of Governments. The SCAG region encompasses six counties (Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura) and 191 cities in an area covering more than 38,000 square miles. SCAG develops long-range regional transportation plans including sustainable communities strategy and growth forecast components, regional transportation improvement programs, regional housing needs allocations and other plans for the region.

As a MPO and public agency, SCAG develops transportation and housing strategies that transcend jurisdictional boundaries that affect the quality of life for southern California as a whole. SCAG’s *2016-2040 RTP/SCS* includes long-range regional transportation plans, regional transportation improvement programs, regional housing needs allocations, and other plans for the region (SCAG, 2016). The *2016-2040 RTP/SCS* also provides objectives for meeting emissions reduction targets set forth by the California Air Resources Board (CARB); these objectives were provided in a direct response to Senate Bill 375 (SB 375) which was enacted to reduce greenhouse gas emissions from automobiles and light trucks through integrated transportation, land use, housing and environmental planning.

The 2016-2040 RTP/SCS also includes an appendix titled “Goods Movement” that is applicable to the Project because the Project entails the development of a light industrial building in the SCAG region that could support a variety of logistics/distribution warehousing or fulfillment center/e-commerce users. In April 2018 SCAG published “*Industrial Warehousing in the SCAG Region.*” According to the document, the SCAG region is a vibrant hub for international and domestic trade because of its large transportation base and extensive multimodal transportation system (SCAG, 2018). The SCAG region’s freight transportation system includes warehouses and distribution centers; the Ports of Los Angeles, Long Beach, and Hueneme; airports; rail intermodal terminals; rail lines, and local streets, state highways and interstates (ibid.). Together the system



enables the movement of goods from source to market, facilitating uninterrupted global commerce (ibid.). The region is home to approximately 34,000 warehouses with 1.17 billion square feet of warehouse building space, and undeveloped land that could accommodate an additional 338 million square feet of new warehouse building space (ibid.). These regions attract robust logistics activities, and are a major reason why the region is a critical mode in the global supply chain.

On November 7, 2019, SCAG adopted the *2020-2045 RTP/SCS (Connect SoCal)* and its associated Program EIR for federal transportation conformity purposes only (SCAG, 2020b). *Connect SoCal* serves as an update to the *2016-2040 RTP/SCS* and is a long-range visioning plan that builds upon and expands land use and transportation strategies established over several planning cycles to increase mobility options and achieve a more sustainable growth pattern. Because *Connect SoCal* is not entirely adopted, the *2016 RTP/SCS* goals and 2016 Program EIR are still valid until the full adoption of *Connect SoCal* and recertification of the associated Program EIR, which is anticipated to be in September 2020. Because the goals of the *2016 RTP/SCS* are still valid at the time this EIR is being prepared, SCAG recommends completing a Project consistency analysis for goals outlined in the *2016 RTP/SCS* and *Connect SoCal*.

5. *SCAQMD Air Quality Management Plan*

An AQMP is a plan for the regional improvement of air quality. The SCAQMD *2016 AQMP* is the applicable AQMP for the South Coast Air Basin and was approved by the SCAQMD Governing Board in March 2017 (SCAQMD, 2017). The Project's consistency with the *2016 AQMP* was analyzed in detail in EIR Subsection 4.2, *Air Quality*, and as such is not further evaluated in this Subsection 4.10.

6. *Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP)*

The Western Riverside County MSHCP is a comprehensive, multi-jurisdictional Habitat Conservation Plan (HCP) focusing on conservation of species and their habitats in Western Riverside County. The Western Riverside County MSHCP was adopted on June 17, 2003, and an Implementing Agreement (IA) was executed between the USFWS, CDFW, and participating entities (including the City of Moreno Valley). Rather than focusing on one species at a time, implementation of the Western Riverside County MSHCP Section 10 Permit preserves native vegetation and meet the habitat needs of multiple species.

The Project site is located within the Reche Canyon Area Plan of the Western Riverside County MSHCP but is not located within a Cell Group, Criteria Cell, or Sub-Unit and is not targeted for conservation. The Project site is located within the MSHCP Burrowing Owl Survey Area but is not located within the Narrow Endemic Plan Species Survey Area (NEPSSA), the Criteria Area Plant Species Survey Area (CAPSSA), or the MSHCP Mammal and Amphibian Survey Areas. (RCA, n.d.) The proposed Project's consistency with the Western Riverside County MSHCP is discussed in detail in EIR Section 4.3, *Biological Resources*, and as such is not further evaluated in this Subsection 4.10.

7. *Airport Land Use Compatibility Plan*

The March Air Reserve Base/ Inland Port (MARB/IP) Airport Land Use Compatibility Plan (ALUCP) identifies land use standards and design criteria for new development located in the proximity of the MARB/IP Airport to ensure compatibility between the airport and surrounding land uses and to maximize public safety.



The Project site is over five miles northeast of the MARB/IP and is outside of the MARB/IP influence area and is not subject to the MARB/IP ALUCP (ALUC, 2014, Map MA-1). Thus, this plan is not further discussed herein.

4.10.3 BASIS FOR DETERMINING SIGNIFICANCE

The Project would result in a significant impact related to land use and planning if the Project or any Project-related component would:

- a. *Physically divide an established community; or*
- b. *Cause a significant environmental impact due to a conflict with any land use plan, policy or regulation adopted for the purpose of avoiding or mitigating an environmental effect.*

The above-listed thresholds are derived directly from Appendix G to the CEQA Guidelines and address the typical, adverse effects related to land use and planning that could result from development projects.

4.10.4 IMPACT ANALYSIS

The analysis provided on the following pages addresses the potential land use and planning impacts that could result from implementation of the proposed warehouse distribution/logistics facility and the conceptual fulfillment/e-commerce facility site plans described in EIR Section 3.0, *Project Description*. Except where specifically noted herein, implementation of the Project for either warehouse distribution/logistics or fulfillment/e-commerce uses would result in similar land use and planning impacts.

Threshold a: Would the Project physically divide an established community?

Under existing conditions, the Project site is bordered by Eucalyptus Avenue to the north, Redlands Boulevard to the east, Encelia Avenue to the south, and Quincy Channel to the west. Immediately south of Encelia Avenue is a residential community. Immediately north and northwest of Eucalyptus Avenue are industrial warehouse facilities. Immediately east of Redlands Boulevard are vacant, undeveloped parcels that are within the approved World Logistics Center Specific Plan and are planned for industrial use.

The Project site contains three (3) occupied residential homes under existing conditions; implementation of the Project would remove these structures from the Project site. However, existing industrial land uses (i.e., warehouses) are located north and northwest of the Project site and undeveloped land planned for non-residential land uses (i.e., “Commercial”) is located north of the Project site. East of the Project site is an assemblage of undeveloped land that is planned for employment and commerce uses as part of the World Logistics Center Specific Plan; this area occupies approximately 2,600 acres and generally extends east of Redlands Boulevard to Gilman Springs Road and south of SR-60 to Cactus Avenue. The Project’s proposed General Plan Amendment would extend the existing and planned employment and commerce land uses in the Project vicinity onto the Project site. Therefore, the Project would be a continuation of the established and planned industrial uses in the General Plan and the Project would not have the potential to physically divide an established community.



The Project would connect to the existing roadway system and other infrastructure and would not involve the reconfiguration of streets that could have the potential to alter the surrounding pattern of future development, or that would affect the connectivity of existing residential uses to the south of the Project site.

Therefore, implementation of the Project would not physically divide any existing, surrounding community and impacts would be less than significant.

Threshold b: *Would the Project cause a significant environmental impact due to a conflict with any land use plan, policy or regulation adopted for the purpose of avoiding or mitigating an environmental effect?*

A. City of Moreno Valley General Plan

The Project includes an amendment to the City of Moreno Valley General Plan Land Use Map that would change the Project site’s land use designation from “Residential: Max 2 du/ac (R2)” to “Business Park/Light Industrial (BP/LI)”. Approval of the requested General Plan Amendment would eliminate any potential inconsistency between proposed land uses and the site’s existing land use designations. Impacts to the environment associated with the Project’s proposed General Plan Amendment are evaluated throughout this EIR, and where significant impacts are identified, mitigation measures are imposed to reduce impacts to the maximum feasible extent. There are no environmental impacts that would result as a specific consequence of the proposed changes to the site’s General Plan land use designation, beyond what is already evaluated and disclosed by this EIR.

Although implementation of the Project would result in the re-classification of the Project site from a residential land use (R2) to a non-residential land use (BP/LI), the City of Moreno Valley has enacted the “Density Bonus Program for SB 330” ordinance (Municipal Code Section 9.03.065) that includes density bonus/transfer provisions to ensure that land use actions taken by the City of Moreno Valley would result in no net loss of residential capacity within the City. Accordingly, the residential units assigned to the Project site by the General Plan under existing conditions could be developed elsewhere in the City in the future, in areas specifically targeted by the City for a range of dwelling types – including more affordable dwelling types.

Based on a review of the Project’s Application materials conducted by City of Moreno Valley staff, the Project would not conflict with any specific objectives, policies, or actions in the General Plan’s Community Development, Economic Development, Parks, Recreation and Open Spaces, Circulation, Safety, Conservation, and Housing Elements that were adopted for the purpose of avoiding or mitigating an environmental effect. As discussed in Subsection 4.12, *Transportation*, although the Project would contribute to traffic congestion and not comply with General Plan Circulation Element Policy 5.3 related to LOS criteria, SB 743 and the CEQA Guidelines stipulate that LOS is not to be used as a criterion for determining significant effects on the environment.

Impacts would be less than significant.



B. City of Moreno Valley Zoning Ordinance

The Project includes a Change of Zone to amend the City of Moreno Valley Zoning Map to change the zoning classification of the Project site from “Residential Agriculture 2 (RA2) District” to “Light Industrial (LI) District,” and to remove the Project site’s “Primary Animal Keeping Overlay (PAKO)” overlay classification. Approval of the requested Change of Zone would eliminate any potential inconsistency between the proposed Project and the site’s underlying zoning classifications. The Project would not conflict with any development regulations and design standards in the Zoning Ordinance, and there are no components of the Project’s proposed Change of Zone that would result in impacts not already evaluated and disclosed by this EIR. Impacts would be less than significant.

C. SCAG Regional Transportation Plan and Sustainable Communities Strategy

As shown in Table 4.10-1, *SCAG’s RTP/SCS Goal Consistency Analysis*, the Project would not conflict with the adopted goals of the *2016 RTP/SCS* and *Connect SoCal*. However, as discussed in EIR Subsection 4.7, *Greenhouse Gas Emissions*, SCAG intended that the *2016 RTP/SCS* and *Connect SoCal* ensure that the southern California region attains the per capita vehicle miles targets for passenger vehicles identified by CARB, as required by Senate Bill 375. The Project would be consistent with the *2016 RTP/SCS* and *Connect SoCal* for integrating the transportation network and related strategies with an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands; however as detailed in Subsection 4.7, Table 4.7-4 and Table 4.7-5, the estimated GHG emissions from Project operation (16,336.94 MTCO_{2e} per year for warehouse distribution use and 28,209.57 MTCO_{2e} per year for e-commerce use) would exceed the SCAQMD threshold (10,000 MTCO_{2e} per year). Even with implementation of mitigation measures identified in Subsection 4.7, GHG emissions would be in excess of SCAQMD thresholds due to the size of the Project; therefore, the Project would not be consistent with SCAG’s *2016 RTP/SCS* and *Connect SoCal’s* Performance Measure regarding criteria pollutants and GHG emissions. The Project would not result in any other land use and planning conflicts with the *2016 SCS/RTP* or *Connect SoCal* that were not already disclosed in EIR Subsection 4.7.

Table 4.10-1 SCAG’s RTP/SCS Goal Consistency Analysis

RTP/SCS Goals	Goal Statement	Project Consistency Discussion
<i>2016 RTP/SCS</i>		
G1	Align the plan investments and policies with improving regional economic development and competitiveness.	<u>No conflict identified.</u> This policy would be implemented by cities and the counties within the SCAG region as part of comprehensive local and regional planning efforts. It should be noted that the Project would improve the regional economy by creating a new warehouse facility.
G2	Maximize mobility and accessibility for all people and goods in the region.	<u>No conflict identified.</u> EIR Subsection 4.12, <i>Transportation</i> , evaluates Project-related traffic impacts and specifies mitigation measures to ensure that roadway and intersection improvements needed to accommodate Project traffic volumes are implemented concurrent with proposed development. Additionally, the Project would improve the accessibility of goods to the surrounding area.



Table 4.10-1 SCAG's RTP/SCS Goal Consistency Analysis

RTP/SCS Goals	Goal Statement	Project Consistency Discussion
G3	Ensure travel safety and reliability for all people and goods in the region.	<u>No conflict identified.</u> As disclosed in EIR Subsection 4.12 there are no components of the Project that would result in a substantial safety hazards to motorists or pedestrians.
G4	Preserve and ensure a sustainable regional transportation system.	<u>No conflict identified.</u> This policy would be implemented by cities and the counties within the SCAG region as part of the overall planning and maintenance of the regional transportation system. The Project would have no adverse effect on such planning or maintenance efforts.
G5	Maximize the productivity of our transportation system.	<u>No conflict identified.</u> This policy would be implemented by cities and the counties within the SCAG region as part of comprehensive transportation planning efforts. The Project would not conflict with the City of Moreno Valley's General Plan Circulation Element, which meets this goal to maximize productivity.
G6	Protect the environment and health for our residents by improving air quality and encouraging active transportation (non-motorized transportation, such as bicycling and walking).	<u>No conflict identified.</u> An analysis of the Project's environmental impacts is provided throughout this EIR, and mitigation measures are specified where warranted. Air quality is addressed in EIR Subsection 4.2, <i>Air Quality</i> , and mitigation measures are specified to reduce the Project's air quality impacts to the maximum feasible extent. Additionally, and as discussed in EIR Subsections 4.7, <i>Greenhouse Gas Emissions</i> , and 4.5, <i>Energy</i> , the Project would foreseeably incorporate various measures related to building design, landscaping, and energy systems to promote the efficient use of energy. Additionally, the Project would construct frontage improvements, including sidewalks which would encourage walking in the Project area. The Project also would construct two (2) bus stop turnouts to encourage public transportation in the Project area.
G7	Actively encourage and create incentives for energy efficiency, where possible.	<u>No conflict identified.</u> This policy provides guidance to City staff to establish local incentive programs to encourage and promote energy efficient development. EIR Subsection 4.5, <i>Energy</i> , discusses the Project's foreseeable design features related to building design, landscaping, and energy systems to promote the efficient use of energy.
G8	Encourage land use and growth patterns that facilitate transit and active transportation.	<u>No conflict identified.</u> This policy provides guidance to the City to establish a local land use plan that facilitates the use of transit and non-motorized forms of transportation. The Project would develop the subject property with an employment-generating land use (i.e., one warehouse building) that would provide local job opportunities to existing and future residents of the City that would be accessible by transit and active transportation.
G9	Maximize the security of the regional transportation system through improved system	<u>No conflict identified.</u> This policy provides guidance to the City of Moreno Valley to monitor the transportation



Table 4.10-1 SCAG's RTP/SCS Goal Consistency Analysis

RTP/SCS Goals	Goal Statement	Project Consistency Discussion
	monitoring, rapid recovery planning, and coordination with other security agencies.	network and to coordinate with other agencies as appropriate. The Project would not conflict with the City's transportation network or the City's coordination with other agencies.
<i>Connect SoCal</i>		
1	Encourage regional economic prosperity and global competitiveness.	<u>No conflict identified.</u> Refer to the consistency analysis for Goal G1 of the 2016 RTP/SCS.
2	Improve mobility, accessibility, reliability, and travel safety for people and goods.	<u>No conflict identified.</u> Refer to the consistency analysis for Goals G2 and G3 of the 2016 RTP/SCS.
3	Enhance the preservation, security, and resilience of the regional transportation system.	<u>No conflict identified.</u> Refer to the consistency analysis for Goals G4 and G9 of the 2016 RTP/SCS.
4	Increase person and goods movement and travel choices within the transportation system.	<u>No conflict identified.</u> The Project involves development of a warehouse facility within a developing industrial area, along designated truck routes, and in close proximity to the State highway system, which would avoid or shorten truck-trip lengths on other roadways. Also, refer to the consistency analysis for Goals G6 and G8 of the 2016 RTP/SCS, which addresses accommodations for alternative modes of transportation (e.g., transit, bicycle and walking).
5	Reduce greenhouse gas emission and improve air quality.	<u>No conflict identified.</u> Refer to the consistency analysis for goals G6 and G7 of the 2016 RTP/SCS.
6	Support healthy and equitable communities.	<u>No conflict identified.</u> This policy pertains to health and equitable communities, and these issues area addressed through goals and policies outlined in the Safety Element of the City's General Plan. Relevant to the Project, the proposed building design would support the health of occupants and users by using non-toxic building materials and finishes, and by using windows and design features to maximize natural light and ventilation.
7	Adapt to a changing climate and support an integrated regional development.	<u>No conflict identified.</u> <i>Connect SoCal</i> indicates that since the adoption of the 2016 RTP/SCS, there have been significant drivers of change in the goods movement industry including emerging and new technologies, more complex supply chain strategies, evolving consumer demands and shifts in trade policies. Warehouse distribution and e-commerce continues to be one of the most influential factors shaping goods movement. The Project involves the redevelopment of a Project site, historically used for agriculture and as a plant nursery, with a warehouse facility that would diversity the City of Moreno Valley's economy and bring employment opportunities closer to the local workforce. Co-locating jobs near housing reduces greenhouse gas emissions caused by long commutes and contributes to integrated development patterns.



Table 4.10-1 SCAG's RTP/SCS Goal Consistency Analysis

RTP/SCS Goals	Goal Statement	Project Consistency Discussion
8	Leverage new transportation technologies and data-driven solutions that result in more efficient travel.	<u>No conflict identified.</u> <i>Connect SoCal</i> also indicates that the advancement of automation is expected to have considerable impacts throughout regional supply chains. Notably, warehouses, such as those proposed with the Project, are increasingly integrating automation to improve operational efficiencies in response to the surge in direct-to-consumer e-commerce. Additionally, continued developments and demonstrations of electric-powered and automated truck technologies will alter the goods movement environment with far-reaching impacts ranging from employment to highway safety. The Project would meet contemporary industry standards to support advancements in these and other transportation technologies.
9	Encourage development of diverse housing types in areas that are supported by multiple transportation options.	<u>No conflict identified.</u> The Project is located in an area designated for industrial uses and would not interfere with the City's ability to encourage the development of diverse housing types that are supported by multiple transportation options in other parts of the City, as appropriate.
10	Promote conservation of natural and agricultural lands and restoration of habitats.	<u>No conflict identified.</u> As disclosed in EIR Subsection 4.3, <i>Biological Resources</i> , the Project would provide mitigation to protect the burrowing owl and to fully compensate for impacts to sensitive habitat. Therefore, implementation of the Project would not interfere with City's ability to promote the conservation of natural and agricultural lands and the restoration of habitats. Additionally, the Project site does not include any land designated for agricultural uses.

Source: (SCAG, 2016, p. 64; SCAG, 2020b, p. 9)

4.10.5 CUMULATIVE IMPACT ANALYSIS

Under existing conditions, the Project site is physically separated from neighboring land uses to the south by an existing roadway (i.e., Encelia Avenue). Because the Project site does not directly abut any established communities, there is no potential for the Project to cause or cumulatively contribute to the division of an established community.

Amendments to the City of Moreno Valley General Plan land use designation applied to the Project site would permit development of the proposed warehouse facility. The Project's proposed General Plan Amendment would eliminate inconsistencies between the proposed land use and the site's existing General Plan land use designation. As development occurs elsewhere throughout the cities of Perris, Hemet, Beaumont, Riverside, and the larger Riverside County area, any proposal to change the underlying land use or development intensity for a specific property similarly would not have the potential to result in conflict with applicable land plans and result in substantial, adverse environmental effects with implementation of an amendment to the applicable land use plan. The Project would not result in any cumulatively-considerable land use and planning conflicts



in the context of compliance with applicable environmental plans, policies, and regulations beyond those identified in other Subsections of this EIR.

4.10.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold a: No Impact. The Project would not physically divide an established community.

Threshold b: Less-than-Significant Impact. The Project's proposed General Plan Amendment would eliminate inconsistencies between the proposed on-site land use and the site's existing General Plan land use designation. The Project would not result in significant land use and planning conflicts in the context of compliance with applicable environmental plans, policies, and regulations beyond those identified in other Subsections of this EIR.

4.10.7 MITIGATION

Impacts would be less than significant; therefore, mitigation is not required.



4.11 NOISE

This Subsection addresses the environmental issue of noise, including existing noise levels in the Project area and the Project's potential to introduce new or elevated sources of noise. The analysis contained herein incorporates information contained in two (2) reports prepared by Urban Crossroads, Inc.: 1) "Moreno Valley Trade Center Warehouse Noise Impact Analysis," dated January 10, 2021 (Urban Crossroads, 2021f); and 2) "Moreno Valley Trade Center E-Commerce Noise Impact Analysis," dated January 10, 2021 (Urban Crossroads, 2021g). The reports are included as *Technical Appendices K1 and K2*, respectively, to this EIR. Refer to Section 7.0, *References*, for a complete list of all reference sources used in this Subsection.

4.11.1 NOISE FUNDAMENTALS

A. Noise Definitions

Noise is simply defined as "unwanted sound." Sound becomes unwanted when it interferes with normal activities, when it causes physical harm, or when it has adverse effects on health. Because the range of sound that the human ear can detect is large, the scale used to measure sound intensity is based on multiples of 10, the logarithmic scale (Urban Crossroads, 2021f, pp. 9-10; Urban Crossroads, 2021g, pp. 9-10). The unit of measure to describe sound intensity is the decibel (dB). A sound increase of 10 dB represents a ten-fold increase in sound energy and is perceived by the human ear as being roughly twice as loud (ibid.). A-weighted decibels (dBA) approximate the subjective response of the human ear to broad frequency noise sources by discriminating against very low and very high frequencies of the audible spectrum (i.e., frequencies that are not audible to the human ear) (ibid.). The most common sounds vary between 40 dBA (very quiet) to 100 dBA (very loud) (ibid.). Normal conversation at a distance of three feet is roughly 60 dBA, while a jet engine is 110 dBA at approximately 100 feet (ibid.).

B. Noise Descriptors

Environmental noise descriptors are generally based on averages, rather than instantaneous noise levels (Urban Crossroads, 2021f, p. 10; Urban Crossroads, 2021g, p. 10). The most commonly used figure is the equivalent continuous noise level (Leq). Leq represents a steady state sound level containing the same total energy as a time varying signal over a given time period (ibid.). Leq values are not measured directly but are calculated from sound pressure levels typically measured in dBA (ibid.). Consequently, Leq can vary depending on the time of day (ibid.).

Peak hour or average noise levels, while useful, do not completely describe a given noise environment. Noise levels lower than peak hour levels may be disturbing if they occur during times when quiet is most desirable, namely evening and nighttime (sleeping) hours. To account for this, the Community Noise Equivalent Level (CNEL), representing a composite 24-hour noise level is utilized. The CNEL is the weighted average of the intensity of a sound, with corrections for time of day, and averaged over 24 hours (Urban Crossroads, 2021f, p. 10; Urban Crossroads, 2021g, p. 10). The time of day corrections require the addition of five (5) dB to sound levels in the evening from 7:00 p.m. to 10:00 p.m., and the addition of 10 dB to sound levels at night between 10:00 p.m. and 7:00 a.m (ibid.). These additions are made to account for the noise sensitive time periods during the evening and nighttime hours when sound appears louder. CNEL does not represent the actual sound level heard at any particular time, but rather represents the total sound exposure (ibid.). The City



of Moreno Valley relies on the 24-hour CNEL level to assess land use compatibility with transportation-related noise sources (ibid.).

C. Sound Propagation

When sound propagates over a distance, it changes in level and frequency content. The manner in which noise reduces with distance depends on geometric spreading, ground absorption, atmospheric effects, and shielding (Urban Crossroads, 2021f, p. 10; Urban Crossroads, 2021g, p. 10).

1. Geometric Spreading

Sound from a localized source (i.e., a stationary point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 dB for each doubling of distance from a point source (Urban Crossroads, 2021f, p. 10; Urban Crossroads, 2021g, p. 10). Highways consist of several localized noise sources on a defined path and hence can be treated as a line source, which approximates the effect of several point sources (ibid.). Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading (ibid.). Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source (ibid.).

2. Ground Absorption Noise

To account for the ground-effect attenuation (absorption) of noise, two types of site conditions are commonly used in noise models: soft site and hard site conditions. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receptor, such as a parking lot or body of water), no excess ground attenuation is assumed (Urban Crossroads, 2021f, pp. 10-11; Urban Crossroads, 2021g, pp. 10-11). For acoustically absorptive or soft sites (i.e., sites with an absorptive ground surface between the source and the receptor such as soft dirt, grass, or scattered bushes and trees), an excess ground attenuation value of 1.5 dB per doubling of distance is normally assumed (ibid.).

3. Atmospheric Effects

Receptors located downwind from a noise source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels (Urban Crossroads, 2021f, p. 11; Urban Crossroads, 2021g, p. 11). Other factors that may affect noise levels include air temperature, humidity, and turbulence (ibid.).

4. Shielding

A large object or barrier in the path between a noise source and a receptor can substantially attenuate noise levels at the receptor. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Solid objects or barriers are most effective at attenuating noise levels (Urban Crossroads, 2021f, p. 11; Urban Crossroads, 2021g, p. 11). Effective noise barriers can reduce noise levels by 10 to 15 dBA. Noise barriers, however, do have limitations (ibid.). For a noise barrier to work, it must be high enough and long enough to block the path of the noise source (ibid.).



5. *Reflection*

Field studies conducted by the Federal Highway Administration (FHWA) have shown that the reflection from barriers and buildings does not substantially increase noise levels (Urban Crossroads, 2021f, p. 11; Urban Crossroads, 2021g, p. 11). If all the noise striking a structure was reflected back to a given receiving point, the increase would be theoretically limited to 3 dBA (ibid.). Further, not all the acoustical energy is reflected back to same point. Some of the energy would go over the structure, some is reflected to points other than the given receiving point, some is scattered by ground coverings (e.g., grass and other plants), and some is blocked by intervening structures and/or obstacles (e.g., the noise source itself) (ibid.). Additionally, some of the reflected energy is lost due to the longer path that the noise must travel (ibid.). FHWA measurements made to quantify reflective increases in traffic noise have not shown an increase of greater than 1-2 dBA; an increase that is not perceptible to the average human ear (ibid.).

D. Response to Noise

Approximately 10% of the population has a very low tolerance for noise and will object to any noise not of their own making (Urban Crossroads, 2021f, pp. 12-13; Urban Crossroads, 2021g, pp. 12-13). Consequently, even in the quietest environment, some complaints will occur. Another 25% of the population will not complain even in very severe noise environments (ibid.). Thus, a variety of reactions can be expected from people exposed to any given environment. Despite this variability in behavior on an individual level, the population as a whole can be expected to exhibit the following responses to changes in noise levels: an increase of 1 dBA cannot be perceived except in carefully controlled laboratory experiments; a change of 3 dBA is considered “barely perceptible;” and a change of 5 dBA is considered “readily perceptible” (ibid.).

E. Vibration

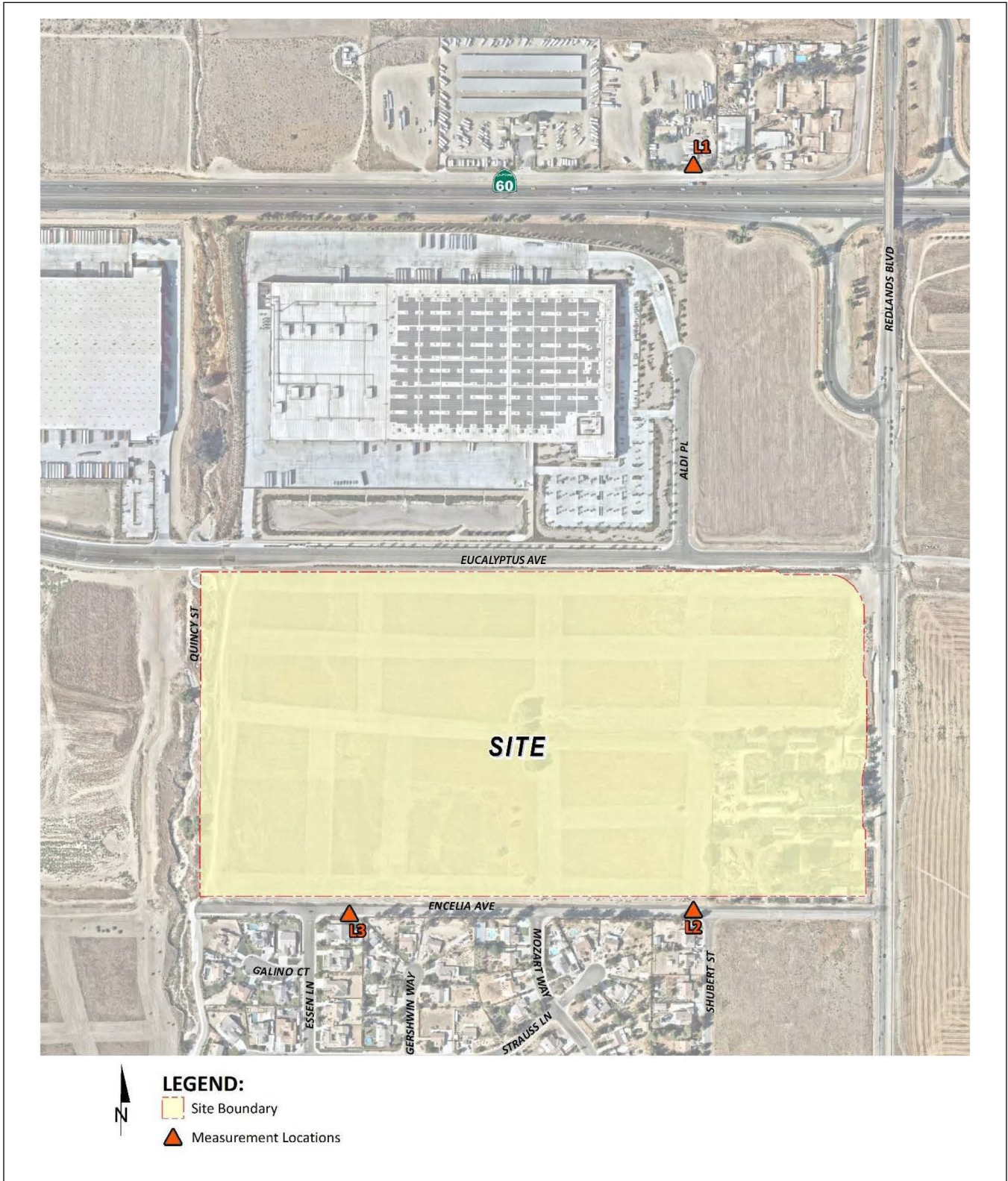
Vibration is the periodic oscillation of a medium or object. Sources of groundborne vibration include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or human-made causes (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, such as factory machinery, or transient, such as explosions. As is the case with airborne sound, groundborne vibrations may be described by amplitude and frequency. Vibration is often described in units of velocity (inches per second) and decibels (dB) and is denoted as VdB.

The background vibration-velocity level in residential areas is generally 50 VdB (Urban Crossroads, 2021f, p. 14; Urban Crossroads, 2021g, p. 14). Groundborne vibration is normally perceptible to humans at approximately 65 VdB (ibid.). For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels (ibid.).

4.11.2 EXISTING NOISE CONDITIONS

A. Existing Study Area Ambient Noise Conditions

Urban Crossroads recorded 24-hour noise readings at three (3) locations near the Project site on December 12, 2019. The noise measurement locations are identified in Figure 4.11-1, *Noise Measurement Locations*. The results of the existing noise level measurements are summarized below. Refer to Appendix 5.2 of *Technical*



Source(s): Urban Crossroads (06-03-2020)

Figure 4.11-1



Not to Scale



Noise Measurement Locations



Appendices K1 and K2 for the noise measurement worksheets used by Urban Crossroads to calculate the noise levels, including a summary of the hourly noise levels and the minimum and maximum observed noise levels at each measurement location. The existing ambient noise levels in the vicinity of the Project site are dominated by traffic noise associated with automobiles and truck traffic on the local arterial roadway network (Urban Crossroads, 2021f, p. 27; Urban Crossroads, 2021g, p. 27).

- **Location L1** represents the noise levels north of the Project site near an existing residential home and SR-60. The noise levels at this location consist primarily of traffic noise from SR-60. The noise level measurements collected show an overall 24-hour exterior noise level of 80.5 dBA CNEL (Urban Crossroads, 2021f, p. 28; Urban Crossroads, 2021g, p. 28). The energy (logarithmic) average daytime noise level was calculated at 75.3 dBA Leq with an average nighttime noise level of 73.8 dBA Leq (ibid.).
- **Location L2** represents the noise levels south of the Project site near existing single-family residential homes by Encelia Avenue and Shubert Street. The noise level measurements collected show an overall 24-hour exterior noise level of 61.0 dBA CNEL. The energy (logarithmic) average daytime noise level was calculated at 54.2 dBA Leq with an average nighttime noise level of 54.6 dBA Leq (Urban Crossroads, 2021f, p. 28; Urban Crossroads, 2021g, p. 28). The noise levels at this location consist primarily of traffic noise from Encelia Avenue and Shubert Street (ibid.).
- **Location L3** represents the noise levels south of the Project site on Encelia Avenue next to existing single-family residential homes. The 24-hour CNEL indicates that the overall exterior noise level is 56.8 dBA CNEL. The energy (logarithmic) average daytime noise level was calculated at 51.0 dBA Leq with an average nighttime noise level of 50.4 dBA Leq (Urban Crossroads, 2021f, p. 28; Urban Crossroads, 2021g, p. 28). Traffic on Encelia Avenue represents the primary source of noise at this location.

B. Existing Groundborne Vibration

There are no sources of perceptible groundborne vibration on the Project site under existing conditions.

C. Existing Airport Noise

The Project site is located approximately 5.7 miles northeast of the March Air Reserve Base/Inland Port (MARB/IP) Airport. The Project site is located outside of the influence area of the MARB/IP Airport and is therefore not subject to the MARB/IP Airport Land Use Compatibility Plan (ALUCP) (ALUC, 2014a, Map MA-1).

4.11.3 REGULATORY SETTING

The following is a brief description of the federal, State, and local environmental laws and regulations related to noise that are applicable to the Project, the Project site, and/or the surrounding area.



A. Federal Plans, Policies, and Regulations

1. Noise Control Act of 1972

The Noise Control Act of 1972 establishes a national policy to promote an environment for all Americans free from noise that jeopardizes their health and welfare. The Act also serves to (1) establish a means for effective coordination of federal research and activities in noise control; (2) authorize the establishment of federal noise emission standards for products distributed in commerce; and (3) provide information to the public respecting the noise emission and noise reduction characteristics of such products (EPA, 2019g).

While primary responsibility for control of noise rests with State and local governments, federal action is essential to deal with major noise sources in commerce, control of which require national uniformity of treatment. The Environmental Protection Agency (EPA) is directed by Congress to coordinate the programs of all federal agencies relating to noise research and noise control.

2. Federal Transit Administration

The Federal Transit Administration (FTA) published a Noise and Vibration Impact Assessment (NVIA), which provides guidance for preparing and reviewing the noise and vibration sections of environmental documents (FTA, 2006, p. 1-1). In the interest of promoting quality and uniformity in assessments, the manual is used by project sponsors and consultants in performing noise and vibration analyses for inclusion in environmental documents. The manual sets forth the methods and procedures for determining the level of noise and vibration impact resulting from most federally-funded transit projects and for determining what can be done to mitigate such impact.

3. Federal Highway Administration

The Federal Highway Administration (FHWA) is the agency responsible for administering the federal-aid highway program in accordance with federal statutes and regulations. The FHWA developed the noise regulations as required by the Federal-Aid Highway Act of 1970 (Public Law 91-605, 84 Stat. 1713). The regulation, 23 CFR 772 Procedures for Abatement of Highway Traffic Noise and Construction Noise, applies to highway construction projects where a State department of transportation has requested federal funding for participation in the project (FHWA, 2017). The regulation requires the highway agency to investigate traffic noise impacts in areas adjacent to federally-aided highways for proposed construction of a highway on a new location or the reconstruction of an existing highway to either significantly change the horizontal or vertical alignment or increase the number of through-traffic lanes. If the highway agency identifies impacts, it must consider abatement. The highway agency must incorporate all feasible and reasonable noise abatement into the project design.

The FHWA regulations for mitigation of highway traffic noise in the planning and design of federally aided highways are contained in Title 23 of the United States Code of Federal Regulations Part 772. The regulations contain noise abatement criteria, which represent the upper limit of acceptable highway traffic noise for different types of land uses and human activities. The regulations do not require meeting the abatement criteria in every instance. Rather, they require highway agencies make every reasonable and feasible effort to provide



noise mitigation when the criteria are approached or exceeded. Compliance with the noise regulations is a prerequisite for the granting of federal-aid highway funds for construction or reconstruction of a highway.

4. *Construction-Related Hearing Conservation*

The Occupational Safety and Health Administration (OSHA) hearing conservation program is designed to protect workers with significant occupational noise exposures from hearing impairment even if they are subject to such noise exposures over their entire working lifetimes (OSHA, 2002). Standard 29 CFR, Part 1910 indicates the noise levels under which a hearing conservation program is required to be provided to workers exposed to high noise levels.

B. State Plans, Policies, and Regulations

1. State of California Noise Requirements

The State of California regulates freeway noise, sets standards for sound transmission, provides occupational noise control criteria, identifies noise standards, and provides guidance for local land use compatibility. State law requires that each county and city in the State of California adopt a General Plan that includes a Noise Element, which is to be prepared according to guidelines adopted by the Governor's Office of Planning and Research. The purpose of the Noise Element is to limit the exposure of the community to excessive noise levels.

2. Building Standards Code

The State of California's noise insulation standards are codified in the California Code of Regulations, Title 24, Building Standards Administrative Code, Part 2, and the California Building Standards Code. These noise standards are applied to new construction in California for the purpose of controlling interior noise levels resulting from exterior noise sources. The regulations specify that acoustical studies must be prepared when noise-sensitive structures, such as residential buildings, schools, or hospitals, are developed near major transportation noise sources, and where such noise sources create an exterior noise level of 60 dBA CNEL or higher. Acoustical studies that accompany building plans for noise-sensitive land uses must demonstrate that the structure has been designed to limit interior noise in habitable rooms to acceptable noise levels. For new residential buildings, schools, and hospitals, the acceptable interior noise limit for new construction is 45 dBA CNEL.

3. OPR General Plan Guidelines

Though not adopted by law, the 2017 California General Plan Guidelines, published by the California Governor's Office of Planning and Research (OPR), provides guidance for local agencies in preparing or updating General Plans. The Guidelines provide direction on the required Noise Element portion of the General Plans (OPR, 2017b, pp. 131-132). The purpose of the Noise Element is to limit the exposure of the community to excessive noise levels. The OPR Guidelines state that General Plan policies and standards must be sufficient to serve as a guideline for compliance with sound transmission control requirements, and directly correlate to the Land Use, Circulation, and Housing Elements. The Guidelines also state that the Noise Element must be used to guide decisions concerning land use and the location of new roads and transit facilities since these are common sources of excessive noise levels. The City of Moreno Valley's General Plan addresses the



topic of noise in the City's General Plan Safety Element. Refer below for a discussion of the City of Moreno Valley's General Plan.

C. Local Plans, Policies, and Regulations

1. City of Moreno Valley General Plan

Moreno Valley General Plan addresses the topic of Noise in General Plan Chapter 6 (Safety Element), and in Chapter 9 (Goals and Objectives) (Moreno Valley, 2006a, pp. 9-30 through 9-35). In particular, noise is addressed by Objectives 6.3, 6.4 and 6.5 and associated policies and Program 6-3. For example, Policy 6.3.1 requires noise mitigation for sensitive uses where the projected noise level would exceed 65 CNEL. Policy 6.5.1 requires new commercial and industrial activities to mitigate noise impacts on adjacent uses. Policy 6.5.2 requires construction activities to limit noise impacts on surrounding uses. Program 6-3 calls for the City to reevaluate designated truck routes in terms of noise impact to determine if those routes should be adjusted to minimize exposure to truck noise.

2. City of Moreno Valley Municipal Code

The Noise Ordinance included in Chapter 11.80 of the Moreno Valley Municipal Code provides performance standards and noise control guidelines for activities within the City limits, as described below.

Construction Noise Standards

The City of Moreno Valley Municipal Code has established restrictions on the time of day that noisy construction activities can occur. Moreno Valley Municipal Code Section 11.80.030(D)(7), *Construction and Demolition*, states:

No person shall operate or cause operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work between the hours of 8:00 p.m. and 7:00 a.m. the following day such that the sound there from creates a noise disturbance, except for emergency work by public service utilities or for other work approved by the city manager or designee. (Moreno Valley, 2018)

A noise disturbance is defined by the Moreno Valley Municipal Code as any sound which: a) disturbs a reasonable person of normal sensitivities; b) exceeds the sound level limits set forth in Municipal Code Table 11.80.030-2; or c) is plainly audible as defined in Municipal Code Section 11.80.030 (Moreno Valley, 2018). Where no specific distance is set forth for the determination of audibility, references to noise disturbance are deemed to mean plainly audible at a distance of 200 feet from the real property line of the source of the sound on private property or from the source of the sound on roads or other publicly owned property (ibid.). For this analysis, the stationary-source noise level limits of 65 dBA Leq during the daytime hours and 60 dBA Leq during the nighttime hours are used as appropriate construction thresholds for the nearby sensitive land uses (e.g. residential homes) in the Project study area.



In addition, grading operations are limited to the hours identified in Section 8.21.050 (O) of 7:00 a.m. to 6:00 p.m., Monday through Friday, and 8:00 a.m. to 4:00 p.m. on weekends and holidays or as approved by the City Engineer (Moreno Valley, 2018).

□ Operational Noise Standards

Moreno Valley Municipal Code Section 11.80.030(C), *Nonimpulsive Sound Decibel Limits*, provides the following restriction:

No person shall maintain, create, operate or cause to be operated on private property any source of sound in such a manner as to create any nonimpulsive sound which exceeds the limits set forth for the source land use category (as defined in Section 11.80.020) in Table 11.80.030-2 when measured at a distance of two hundred (200) feet or more from the real property line of the source of the sound, if the sound occurs on privately owned property, or from the source of the sound, if the sound occurs on public right-of-way, public space or other publicly owned property. Any source of sound in violation of this subsection shall be deemed prima facie to be a noise disturbance. (Moreno Valley, 2018)

For industrial land uses, the operational noise level limits are 65 dBA Leq during the daytime hours (8:00 a.m. to 10:00 p.m.) and 60 dBA Leq during the nighttime hours (10:01 p.m. to 7:59 a.m.) (Moreno Valley, 2018). Therefore, at a distance of 200 feet from the property line, operational noise from industrial buildings is not permitted to exceed 65 dBA Leq during the day and 60 dBA Leq during the night.

Additionally, Moreno Valley Municipal Code Section 9.10.140 prohibits the use of loudspeakers, bells, gongs, buzzers, or other noise attention or attracting devices on industrial properties that exceed 55 dBA at any one time beyond the boundaries of the subject property (Moreno Valley, 2018).

□ Vibration

Moreno Valley Municipal Code Section 9.10.170 prohibits vibration that “can be felt at or beyond the property line” (Moreno Valley, 2018).

4.11.4 METHODOLOGY FOR CALCULATING PROJECT-RELATED NOISE IMPACTS

A. Construction Noise Analysis Methodology

For the construction noise analysis, reference noise level measurements are relied upon that Urban Crossroads collected with calibrated noise monitoring meters at construction sites in southern California. The reference noise level measurements included the types of construction equipment that would be used on the Project site performing similar types of construction activities at a similar level of activity/intensity as is expected to occur on the Project site. Table 4.11-1, *Construction Reference Noise Levels*, provides a summary of the reference noise level measurements. Because the reference noise measurements were collected at varying distances, all construction noise level measurements presented in Table 4.11-1 were normalized by Urban Crossroads to describe a common reference distance of 50 feet (Urban Crossroads, 2021f, p. 63; Urban Crossroads, 2021g, p. 67).



The construction noise analysis evaluates Project construction-related noise levels at the closest nearby receiver locations in the Project study area. Three (3) representative receiver locations were considered in the construction noise analysis, including existing dwelling units located north and south of the Project site. The receiver locations used in the construction noise analysis are shown on Figure 4.11-2, *Noise Receiver Locations*. The modeled noise-sensitive receiver locations are representative of existing receptors nearest the Project site. It is not necessary to study every single receiver location surrounding Project’s construction area because receivers located at a similar distance from Project-related construction activities with similar ground elevations, orientation, and intervening physical conditions as the modeled receptor locations would experience the same or very similar noise effects as those disclosed herein, and those at a greater distance would experience lesser noise effects.

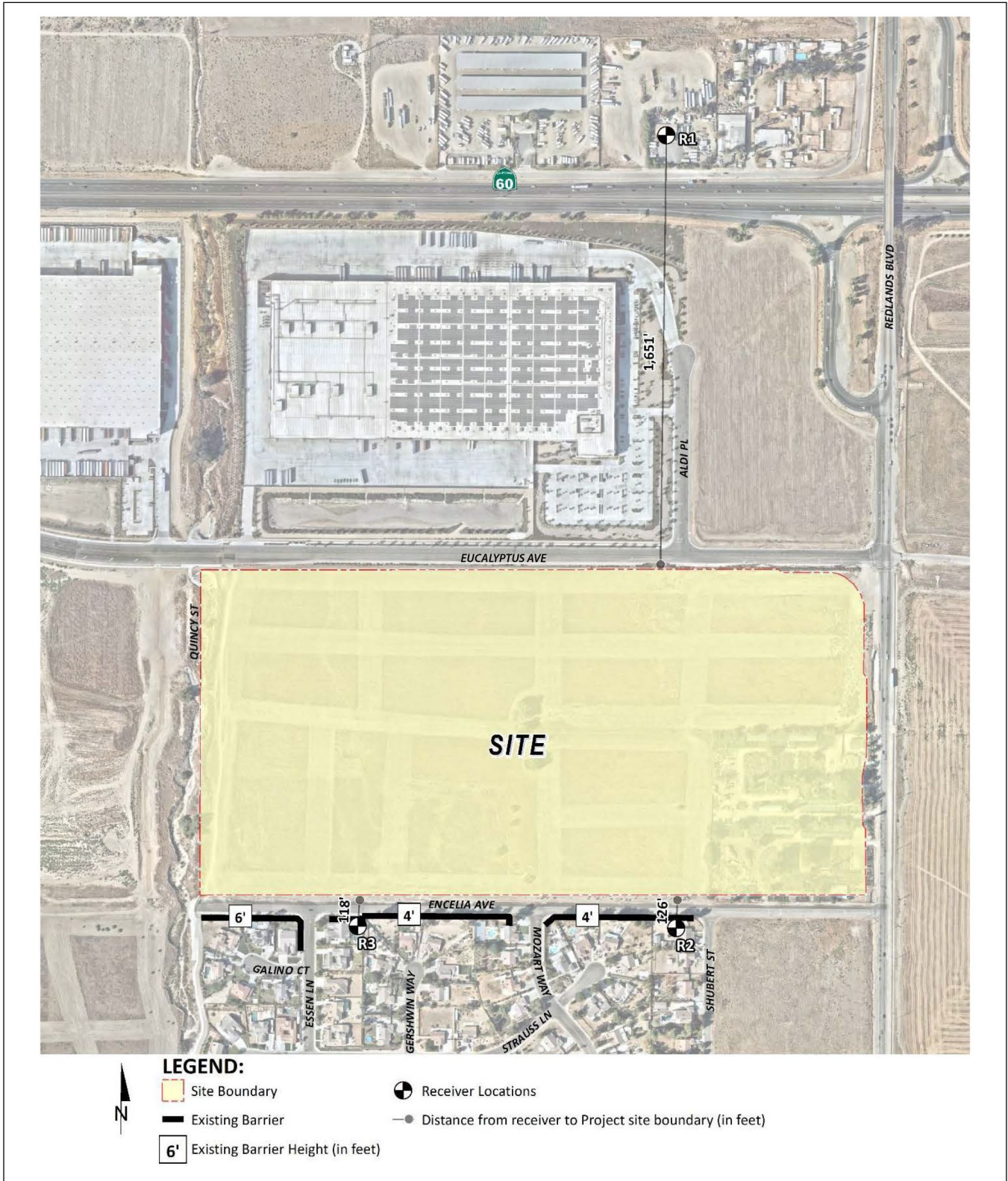
Table 4.11-1 Construction Reference Noise Levels

Construction Stage	Reference Construction Activity¹	Reference Noise Level @ 50 Feet (dBA Leq)	Highest Reference Noise Level (dBA Leq)
Demolition	Demolition Activity	67.9	71.9
	Backhoe	64.2	
	Water Truck Pass-By & Backup Alarm	71.9	
Site Preparation	Scraper Turnaround & Pass-by 4 with Blades	72.6	72.6
	Backhoe	64.2	
	Water Truck Pass-By & Backup Alarm	71.9	
Grading	Rough Grading Activities	73.5	73.5
	Water Truck Pass-By & Backup Alarm	71.9	
	Construction Vehicle Maintenance Activities	67.5	
Building Construction	Foundation Trenching	68.2	71.6
	Framing	62.3	
	Concrete Mixer Backup Alarms & Air Brakes	71.6	
Paving	Concrete Mixer Truck Movements	71.2	71.2
	Concrete Paver Activities	65.6	
	Concrete Mixer Pour & Paving Activities	65.9	
Architectural Coating	Air Compressors	65.2	65.2
	Generator	64.9	
	Crane	62.3	

¹Reference construction noise level measurements collected by Urban Crossroads, Inc.
Source: (Urban Crossroads, 2021f, Table 10-1; Urban Crossroads, 2021g, Table 10-1)

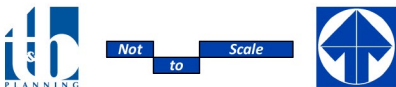
B. Sheet Pile System Construction Analysis Methodology

An additional analysis was completed to assess potential impacts due to sheet pile drilling activities planned along the western Project site boundary. Figure 4.11-3, *Sheet Pile Driving Noise Source Locations*, shows the location of the sheet pile drilling area in relation to three (3) nearby sheet pile receiver locations. The sheet

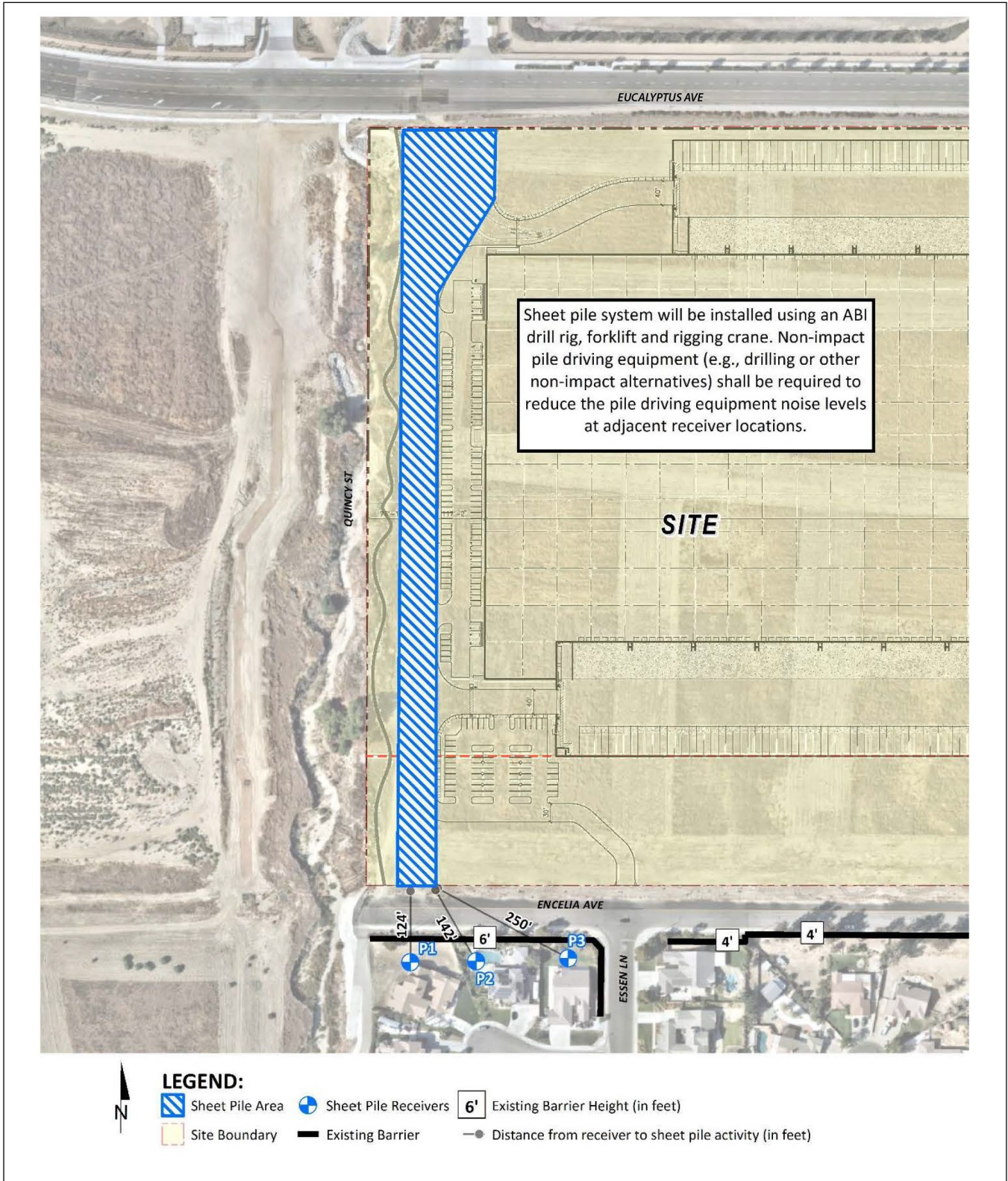


Source(s): Urban Crossroads (06-03-2020)

Figure 4.11-2

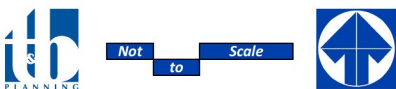


Noise Receiver Locations



Source(s): Urban Crossroads (06-03-2020)

Figure 4.11-3



Sheet Pile Driving Noise Source Locations



pile system would be installed using an ABI drill rig, forklift and rigging crane. Although in practicality the equipment will not be in continuous use for 8 hours a day, for purposes of analysis and to present a worst-case noise impact level, the analysis assumes that the contractor would be using the ABI drill rig to drive piles 8 hours per day (Urban Crossroads, 2021f, p. 67; Urban Crossroads, 2021g, p. 72). This activity is expected to occur for approximately 25 days (ibid.). This sheet pile construction noise analysis was prepared using reference construction equipment noise levels from the FHWA’s Roadway Construction Noise Model (RCNM), which includes a national database of construction equipment reference noise emission levels. A default ground attenuation factor of 1.0 was used in the Computer Aided Noise Abatement (Cadena) noise prediction model to account for hard site conditions (Urban Crossroads, 2021f, p. 68; Urban Crossroads, 2021g, p. 72). Table 4.11-2, *Sheet Pile System Construction Reference Noise Levels*, provides a summary of the reference average Leq noise levels used to describe the sheet pile system stage of construction. Because the reference noise measurements were collected at varying distances, all sheet pile system construction noise level measurements presented in Table 4.11-2 were normalized by Urban Crossroads to describe a common reference distance of 50 feet.

Sheet pile system methods can include different equipment types, such as impact or drilling, and as such, noise levels would vary depending on the method used. Non-impact pile driving equipment (e.g., drilling or other non-impact alternatives) such as the planned ABI drill rig would be required to reduce the pile driving equipment noise levels at adjacent receiver locations (Urban Crossroads, 2021f, p. 68; Urban Crossroads, 2021g, p. 72).

Table 4.11-2 Sheet Pile System Construction Reference Noise Levels

Construction Stage	Typical Equipment	Reference Noise Level @ 50 Feet (dBA Leq) ¹	Highest Reference Noise Level (dBA Leq)
Sheet Pile System	Drill Rig	77	77
	Forklifts	68	
	Cranes	73	

¹FHWA’s Roadway Construction Noise Model, January 2006.

Source: (Urban Crossroads, 2021f, Table 10-5; Urban Crossroads, 2021g, Table 10-5)

C. Stationary Noise Analysis Methodology

For the operational (stationary) noise analysis, reference noise level measurements are used that were collected by Urban Crossroads at industrial facilities in southern California. The reference noise level measurements included the types of equipment and site operations that are expected on the Project site. Table 4.11-3, *Operational Reference Noise Levels*, provides a summary of the reference noise level measurements. Because the reference noise measurements were collected at varying distances, all operational noise level measurements presented in Table 4.11-3 were normalized by Urban Crossroads to describe a common reference distance of 50 feet (Urban Crossroads, 2021f, p. 55; Urban Crossroads, 2021g, p. 59).

The stationary noise analysis evaluates Project-related noise levels at the nearby receiver locations in the Project study area. Three (3) receiver locations were considered in the construction noise analysis, including



existing dwelling units located north and south of the Project site. The receiver locations used in the stationary noise analysis are the same that are used in the construction analysis (refer to Figure 4.11-2, *Noise Receiver Locations*). As discussed earlier in this Subsection, it is not necessary to study every single receiver location surrounding Project site because receivers located at similar distances from the Project site with similar ground elevations, orientation, and intervening physical conditions (e.g., walls, landscaping) as the modeled receptor locations would experience noise levels the same or very similar to those disclosed herein.

Table 4.11-3 Operational Reference Noise Levels

Noise Source ¹	Noise Source Height (Feet)	Min./Hour ²		Reference Noise Level (dBA L _{eq}) @ 50 feet	Sound Power Level (dBA) ³
		Day	Night		
Cold Storage Loading Dock Activity	8'	60	60	65.7	111.5
Dry Goods Loading Dock Activity	8'	60	60	62.8	103.4
Entry Gate & Truck Movements	8'	- ⁴	- ⁴	58.0	89.7
Roof-Top Air Conditioning Units	5'	39	28	57.2	88.9
Trash Enclosure Activity	5'	5	5	57.3	89.0

¹As measured by Urban Crossroads, Inc.

²Anticipated duration (minutes within the hour) of noise activity during typical hourly conditions expected at the Project site. "Daytime" = 8:00 a.m. - 10:00 p.m.; "Nighttime" = 10:01 p.m. - 7:59 a.m.

³Sound power level represents the total amount of acoustical energy (noise level) produced by a sound source independent of distance or surroundings. Sound power levels calculated using the CadnaA noise model at the reference distance to the noise source. Numbers may vary due to size differences between point and area noise sources.

⁴Entry Gate & Truck Movements are calculate based on the number of events by time of day (See Table 9-2 of *Technical Appendices K1 and K2*).

Source: (Urban Crossroads, 2021f, Table 9-1; Urban Crossroads, 2021g, Table 9-1)

D. Transportation-Related Noise Analysis Methodology

Transportation-related noise impacts were projected using a computer program that replicates the Federal Highway Administration (FHWA) Traffic Noise Prediction Model FHWA-RD-77-108 (the "FHWA Model") (Urban Crossroads, 2021f, p. 31; Urban Crossroads, 2021g, p. 31). The FHWA Model arrives at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL). In California, the national REMELs are substituted with the California Vehicle Noise (Calveno) Emission Levels. Adjustments are then made to the REMELs to account for: 1) roadway classification (e.g., collector, secondary, major or arterial), 2) roadway travel width (i.e., the distance between the center of the outermost travel lanes on each side of the roadway), 3) total average daily traffic (ADT), 4) travel speed, 5) percentages of automobiles, medium trucks, and heavy trucks in the traffic volume, 6) roadway grade, 7) angle of view (e.g., whether the roadway view is blocked), 8) site conditions ("hard" or "soft" relates to the absorption of the ground, pavement, or landscaping), and 9) percentage of total ADT that flows each hour throughout a 24-hour period (ibid.).

Table 4.11-4, *Roadway Parameters – Warehouse Use*, presents the FHWA Model roadway parameters used by Urban Crossroads for each of the 15 roadway segments in the Project study area for warehouse distribution use and Table 4.11-5, *Roadway Parameters – E-Commerce Use*, presents the FHWA Model roadway



parameters used by Urban Crossroads for each of the 36 roadway segments in the Project study area for e-commerce use. For the purpose of the off-site analysis, soft site conditions were used to analyze the traffic noise impacts on each roadway segment in the study area because landscaping typically exists between the street surface and the noise receiver (Urban Crossroads, 2021f, p. 33; Urban Crossroads, 2021g, p. 31).

To quantify transportation-related noise levels, the vehicular trips associated with the Project were assigned to the 15 roadway segments for warehouse distribution use and 36 roadway segments for e-commerce use, using the trip distribution and vehicle mix information contained in the Project’s traffic impact analyses prepared by Translutions, Inc. (refer to *Technical Appendices L1, L2, L3, and L4*) (Urban Crossroads, 2021f, p. 33; Urban Crossroads, 2021g, p. 31).

Table 4.11-4 Roadway Parameters – Warehouse Use

ID	Roadway	Segment	Receiving General Plan Land Use¹	Distance from Centerline to Receiving Land Use (Feet)²	Vehicle Speed (mph)³
1	Redlands Blvd.	s/o SR-60 Westbound Ramps	BP-LI/C	55'	50
2	Redlands Blvd.	s/o SR-60 Eastbound Ramps	BP-LI/C	55'	50
3	Redlands Blvd.	s/o Eucalyptus Av.	BP-LI/R	55'	50
4	Redlands Blvd.	s/o Dwy. 6	BP-LI/R	55'	50
5	Redlands Blvd.	n/o Encelia Av.	BP-LI/R	55'	50
6	Moreno Beach Dr.	s/o SR-60 Westbound Ramps	C	67'	50
7	Moreno Beach Dr.	s/o SR-60 Eastbound Ramps	C	67'	50
8	Eucalyptus Av.	e/o Moreno Beach Dr.	BP-LI/C	50'	40
9	Eucalyptus Av.	e/o Auto Mall Dr.	BP-LI/R	50'	40
10	Eucalyptus Av.	w/o Aldi Place	BP-LI/R	50'	40
11	Eucalyptus Av.	w/o Dwy. 5	BP-LI/R/C	50'	40
12	Eucalyptus Av.	w/o Redlands Blvd.	BP-LI/R/C	50'	40
13	Encelia Av.	e/o Essen Lane	R	44'	45
14	Encelia Av.	e/o Mozart Wy.	R	44'	45
15	Encelia Av.	w/o Redlands Blvd.	R	44'	45

¹Sources: City of Moreno Valley Land Use Map Figure 2-2.

²Distance to receiving land use is based upon the right-of-way distances.

³Source: Moreno Valley Trade Center Traffic Impact Analysis, Translutions, inc.

"BP-LI"= Business Park/Light Industrial; "C"= Commercial; "R"= Residential.

Source: (Urban Crossroads, 2021f, Table 6-1)



Table 4.11-5 Roadway Parameters – E-Commerce Use

ID	Roadway	Segment	Receiving General Plan Land Use ¹	Distance from Centerline to Receiving Land Use (Feet) ²	Vehicle Speed (mph) ³
1	San Timoteo Cyn. Rd.	n/o Alessandro Rd.	RP	36'	45
2	San Timoteo Cyn. Rd.	s/o Live Oak Canyon Rd.	RR	55'	55
3	Redlands Blvd.	s/o San Timoteo Canyon Rd.	RR	55'	55
4	Redlands Blvd.	n/o Ironwood Av.	R	55'	50
5	Redlands Blvd.	s/o Ironwood Av.	R	55'	50
6	Redlands Blvd.	s/o SR-60 Westbound Ramps	BP-LI/C	55'	50
7	Redlands Blvd.	n/o Eucalyptus Av.	BP-LI/C	55'	50
8	Redlands Blvd.	s/o Eucalyptus Av.	BP-LI/R	55'	50
9	Redlands Blvd.	n/o Dwy. 7	BP-LI/R	55'	50
10	Redlands Blvd.	s/o Dwy. 7	BP-LI/R	55'	50
11	Redlands Blvd.	s/o Encelia Av.	BP-LI/R	55'	50
12	Redlands Blvd.	n/o Alessandro Blvd.	R/C	55'	50
13	Redlands Blvd.	s/o Alessandro Blvd.	R/C	55'	50
14	John F Kennedy Dr.	s/o Cactus Av.	HR	44'	45
15	Moreno Beach Dr.	n/o SR-60 Westbound Ramps	O	50'	40
16	Moreno Beach Dr.	s/o SR-60 Eastbound Ramps	C	67'	50
17	Moreno Beach Dr.	s/o Alessandro Blvd.	C/R-O/R	67'	50
18	Moreno Beach Dr.	s/o Cactus Av.	R/OS	67'	50
19	Moreno Beach Dr.	s/o John F Kennedy Dr.	R/C/OS	67'	50
20	Iris Av.	e/o Nason St.	HR/R-O/C/O	67'	50
21	Iris Av.	e/o Lasselle St.	C/R	67'	50
22	Iris Av.	e/o Kitching St.	R/OS	67'	50
23	Eucalyptus Av.	e/o Nason St.	R/OS	50'	40
24	Eucalyptus Av.	e/o Fir Av.	R/OS/C	50'	40
25	Eucalyptus Av.	w/o Moreno Beach Dr.	C/R	50'	40
26	Eucalyptus Av.	e/o Auto Mall Dr.	BP-LI/R	50'	40
27	Eucalyptus Av.	e/o Dwy. 1	BP-LI/R	50'	40
28	Eucalyptus Av.	w/o Dwy. 5	BP-LI/R/C	50'	40
29	Eucalyptus Av.	w/o Redlands Blvd.	BP-LI/R/C	50'	40
30	Eucalyptus Av.	e/o Redlands Blvd.	BP-LI	50'	40
31	Encelia Av.	e/o Essen Lane	R	44'	45
32	Encelia Av.	e/o Mozart Wy.	R	44'	45
33	Encelia Av.	w/o Redlands Blvd.	R	44'	45
34	Alessandro Blvd.	e/o Lasselle St.	R/C	67'	45
35	Alessandro Blvd.	e/o Nason St.	R-O/R	55'	45
36	Alessandro Blvd.	e/o Moreno Beach Dr.	C/R	55'	45

¹City of Moreno Valley Land Use Map Figure 2-2, City of Redlands General Plan Land Use Map, Riverside County General Plan Land Use Map.

²Distance to receiving land use is based upon the right-of-way distances.

³Source: Moreno Valley Trade Center Traffic Impact Analysis, translutions, inc.

"RP"= Resource Preservation; "RR"= Rural Residential; "R"= Residential; "BP-LI"= Business Park/Light Industrial; "C"= Commercial; "HR"= Hillside Residential; "O"= Office; "R-O"= Residential/Office; "OS"= Open Space.

Source: (Urban Crossroads, 2021g, Table 6-1)



E. Vibration

Vibration levels were predicted using reference vibration levels and logarithmic equations contained in the Federal Transit Administration’s (FTA) 2018 publication: “Transit Noise and Vibration Impact Assessment” (Urban Crossroads, 2021f, p. 38; Urban Crossroads, 2021g, p. 38). The vibration source levels for Project construction equipment are summarized in Table 4.11-6, *Vibration Source Levels for Construction Equipment*.

Table 4.11-6 Vibration Source Levels for Construction Equipment

Equipment	Vibration Decibels (VdB) at 25 feet
Small bulldozer	58
Jackhammer	79
Loaded Trucks	86
Large bulldozer	87
Pile Driver	93

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment
Source: (Urban Crossroads, 2021f, Table 6-8; Urban Crossroads, 2021g, Table 6-8)

4.11.5 BASIS FOR DETERMINING SIGNIFICANCE

The Project would result in a significant noise impact if the Project or any Project-related component would result in:

- a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;*
- b. Generation of excessive groundborne vibration or groundborne noise levels; or*
- c. For a project located within the vicinity of a private airstrip or an airport land use plan, or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.*

The above-listed thresholds are derived directly from Appendix G to the CEQA Guidelines and address the typical, adverse noise-related effects that could result from development projects.

In relation to Threshold “a,” City of Moreno Valley Noise Ordinance (Moreno Valley Municipal Code Chapter 11.80 and Section 8.21.050) is the only relevant, established construction noise standards for the Project site. Pursuant to the Moreno Valley Municipal Code, the Project would result in a significant temporary noise impact relevant to Threshold “a” if any of the following were to occur:

- If Project-related construction activities create noise levels at 200 feet from the property line of the noise source that exceed 65 dBA Leq during the daytime hours (7:00 a.m. to 8:00 p.m. for general construction activities on week days; 7:00 a.m. to 6:00 p.m. for grading activities on week days; and



8:00 a.m. to 4:00 p.m. for grading activities on weekends and holidays), or 60 dBA Leq during the nighttime hours (between 10:01 p.m. to 7:59 a.m.).

In relation to Threshold “a,” the Project would result in a significant noise impact during operation if any of the following conditions occur:

Project-related traffic noise would result in a significant impact if traffic noise exceeds the levels established in the OPR land use/noise compatibility criteria, found in Figure 2 of the General Plan Guidelines, Appendix D: Noise Element Guidelines as follows:

- If Project related traffic on the roadway system exposes noise sensitive receptors (including residential homes) to:
 - A 5 dBA or greater noise level increase at noise-sensitive receptors when the existing ambient noise level is less than 60 dBA;
 - A 3 dBA or greater noise level increase at noise-sensitive receptors when the existing ambient noise level is between 60.1 and 65 dBA CNEL; or
 - A 1.5 dBA or greater noise level increase at noise-sensitive receptors when the existing ambient noise levels exceeds 65.1 dBA CNEL.
- If off-site Project-related traffic on the roadway system exposes non-noise-sensitive receptors to:
 - A 5 dBA or greater noise level increase at non-noise-sensitive receptors when the existing ambient noise level is less than 70 dBA; or
 - A 3 dBA or greater noise level increase at non-noise sensitive receptors when the existing ambient noise level is greater than 70 dBA.

Project operational activities would result in a significant impact if operational noise exceeds the levels allowed by the City of Moreno Valley Municipal Code (Section 11.80.030) as follows:

- If operational (stationary-source) noise levels exceed 65 dBA Leq during the daytime hours (8:00 a.m. to 10:00 p.m.) and/or 60 dBA Leq during the nighttime hours (10:01 p.m. to 7:59 a.m.) when measured at a distance of 200 feet from the Project site’s property line; or
- If Project-related operations exposes noise-sensitive receptors to:
 - A 5 dBA or greater noise level increase at noise-sensitive receptors when the existing ambient noise level is less than 60 dBA Leq;
 - A 3 dBA or greater noise level increase at noise-sensitive receptors when the existing ambient noise level is between 60.1 and 65 dBA CNEL; or
 - A 1.5 dBA or greater noise level increase at noise-sensitive receptors when the existing ambient noise levels exceeds 65.1 dBA CNEL.



In relation to Threshold “b,” the Moreno Valley Municipal Codes does not define the numeric level at which a development project’s vibration levels are considered “excessive.” For purposes of this EIR, the metric used to evaluate whether the Project’s vibration levels are considered “excessive” during either construction or operation is adapted from FTA, Transit Noise and Vibration Impact Assessment Manual (Urban Crossroads, 2021f, pp. 22, 25-26; Urban Crossroads, 2021g, pp. 22, 25-26). Accordingly, in consideration of the Municipal Code and FTA criteria, for evaluation under Threshold “b,” vibration levels are considered significant if Project-related activities would:

- Construction Activities:
 - Create or cause to be created any vibration activity that would exceed 78 VdB at a noise sensitive receptor land use.
- On-Site Project Operations:
 - Create or cause to be created any vibration activity that would exceed 78 Vdb during the daytime hours (8:00 a.m. to 10:00 p.m.) and/or 72 VdB during the nighttime hours (10:01 p.m. to 7:59 a.m.) at a noise sensitive receptor land use.

4.11.6 IMPACT ANALYSIS

The analysis provided on the following pages addresses the potential noise impacts could result from implementation of the proposed warehouse distribution/logistics facility and the conceptual fulfillment/e-commerce facility site plans described in EIR Section 3.0, *Project Description*. Except where specifically noted herein, implementation of the Project for either warehouse distribution/logistics or fulfillment/e-commerce uses would result in similar noise impacts.

Threshold a: Would the Project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

The analysis presented on the following pages summarizes the Project’s potential construction noise levels and operational noise levels, including operational noise that would be generated on-site as well as off-site noise on the roadway system that would be generated by the Project’s traffic. The detailed noise calculations for the analysis presented here are provided in Appendices 7.1 and 9.1 of *Technical Appendices K1 and K2*.

A. Short-Term Construction Noise Impact Analysis

Construction of the proposed Project, whether it be a warehouse distribution/logistics use or fulfillment center/e-commerce use (see EIR Section 3.0, *Project Description*) would result in identical ground disturbances, utilize the same construction equipment fleet, and result in the same improvements. Accordingly, the analysis below addresses potential construction-related effects from implementation of the Project for either warehouse distribution/logistics or fulfillment/e-commerce uses.

Construction activities on the Project site would proceed in six (6) stages: 1) demolition; 2) site preparation; 3) grading; 4) building construction; 5) paving; and 6) application of architectural coatings. These activities



would create temporary periods of noise when heavy construction equipment (i.e., bulldozer, trucks, concrete mixer, portable generators, power tools) is in operation and would cause a short-term increase in ambient noise levels. The Project construction noise levels at nearby receiver locations are summarized in Table 4.11-7, *Project Construction Noise Levels*.

Table 4.11-7 Project Construction Noise Levels

Receiver Location ¹	Construction Noise Levels (dBA L _{eq})		
	Highest Construction Noise Levels ²	Threshold ³	Threshold Exceeded? ⁴
R1	58.6	65	No
R2	64.7	65	No
R3	64.5	65	No
at 200'	63.3	65	No

¹Noise receiver locations are shown on Exhibit 10-A of *Technical Appendices K1 and K2*.

²Highest construction noise level calculations based on distance from the construction noise source activity to nearby receiver locations as shown on Table 10-2 of *Technical Appendices K1 and K2*.

³Construction noise level thresholds are listed in Subsection 4.11.5 and shown on Table 4-1 of *Technical Appendices K1 and K2*.

⁴Do the estimated Project construction noise levels exceed the construction noise level threshold?

Source: (Urban Crossroads, 2021f, Table 10-3; Urban Crossroads, 2021g, Table 10-3)

As shown on Table 4.11-7, the Project’s daytime construction noise levels are expected to range from 58.6 to 64.7 A-weighted decibels (dBA) equivalent sound level (L_{eq}) at the nearby receiver locations and would be 63.3 dBA L_{eq} at 200 feet from the Project site. Project construction noise levels are considered exempt from the noise limits specified in the City of Moreno Valley’s Municipal Code if activities occur within the hours of 7:00 a.m. to 8:00 p.m. (Municipal Code Section 11.80.030(D)(7)). Because Project-related construction activities are expected to occur during daylight hours, Project construction would not exceed the standards established by the City of Moreno Valley Municipal Code and impacts would be less than significant.

Notwithstanding, there is the potential that specific Project construction activities could occur outside of the construction hours permitted by right in the Municipal Code. Pursuant to Municipal Code Section 11.80.030(D)(7), the City of Moreno Valley would be required to approve any nighttime construction activities. If nighttime construction activities were to occur, noise levels above 60 dBA L_{eq} would exceed the standards established in the City’s Municipal Code Section 11.80.030(C). The only Project construction activity with a reasonable potential to occur during nighttime hours is concrete pouring – either for the building foundation and/or wall panels – which would occur only within the building footprint. As shown in Table 4.11-8, nighttime concrete pouring activities would not exceed 55.8 dBA L_{eq} at any nearby sensitive receiver location or 55.4 dBA L_{eq} at a distance of 200 feet from the Project site. Neither noise level would exceed the standard established by the City of Moreno Valley Municipal Code. Impacts during potential nighttime concrete pouring activities would be less than significant.



Table 4.11-8 Nighttime Concrete Pouring Noise Levels

Receiver Location ¹	Construction Noise Levels (dBA L _{eq})		
	Paving Construction ²	Nighttime Construction Standard ³	Threshold Exceeded? ⁴
R1	52.9	60	No
R2	55.8	60	No
R3	55.8	60	No
at 200'	55.4	60	No

¹ Noise receiver locations are shown on Exhibit 10-A of *Technical Appendices K1 and K2*.

² Construction noise level calculations based on the distance from receiver location and the concrete pouring construction activity area.

³ Construction noise level standards are listed in Subsection 4.11.5 and shown on Table 4-1 of *Technical Appendices K1 and K2*.

⁴ Do the estimated Project construction noise levels exceed the construction noise level threshold?

Source: (Urban Crossroads, 2021f, Table 10-4; Urban Crossroads, 2021g, Table 10-4)

B. Short-Term Sheet Pile System Construction Noise Impact Analysis

Sheet pile driving is proposed along the western Project site boundary during construction, under both the proposed warehouse distribution/logistics use or the conceptual fulfillment center/e-commerce use (see EIR Section 3.0, *Project Description*). Accordingly, the analysis below addresses potential construction-related effects from pile driving during construction for either warehouse distribution/logistics or fulfillment/e-commerce uses.

Using the reference RCNM construction equipment noise levels and the CadnaA noise prediction model, an assessment of noise impacts associated with sheet pile driving was conducted for three (3) representative receiver locations. To assess the worst-case construction noise levels, the analysis reports the highest noise level impacts when the equipment with the highest reference noise level is operating at the closest point from the Project site boundary, and thus the closest distance to sensitive receivers. The noise levels from the proposed pile driving at receiver locations located 200 feet from the Project site’s property line are summarized in Table 4.11-9, *Project Sheet Pile System Construction Noise Levels*. As shown on Table 4.11-9, none of the receiver locations located near the Project site or at 200 feet from the property line would be exposed to noise levels that exceed the applicable limits established by the City of Moreno Valley Municipal Code, assuming a non-impact method of pile driving. Accordingly, the Project’s sheet pile system construction noise impact would be less than significant and no mitigation would be required.

C. Operational Noise Impact Analysis – Stationary Noise

As explained in EIR Section 3.0, *Project Description*, the future occupant(s) of the Project’s building is currently unknown. The Project Applicant expects that the building would be occupied by warehouse distribution/logistics operator(s) or fulfillment/e-commerce businesses. Both occupant types are evaluated herein, with the warehouse option evaluated in *Technical Appendix I* and the fulfillment/e-commerce option evaluated in *Technical Appendix J*.



Table 4.11-9 Project Sheet Pile System Construction Noise Levels

Receiver Location ¹	Sheet Pile System Construction Noise Levels (dBA L _{eq})		
	Highest Construction Noise Levels ²	Threshold ³	Threshold Exceeded? ⁴
R1	64.1	65	No
R2	62.2	65	No
R3	57.4	65	No
at 200'	60.0	65	No

¹Noise receiver locations near the planned sheet pile area are shown on Exhibit 10-B of *Technical Appendices K1 and K2*.

²Highest construction noise level calculations based on distance from the sheet pile noise source activity to nearby receiver locations as shown on Table 10-5 of *Technical Appendices K1 and K2*.

³Construction noise level thresholds are listed in Subsection 4.11.5 and shown on Table 4-1 of *Technical Appendices K1 and K2*.

⁴Do the estimated Project construction noise levels exceed the construction noise level threshold?

Source: (Urban Crossroads, 2021f, Table 10-6; Urban Crossroads, 2021g, Table 10-6)

Under both scenarios, the proposed building is designed such that business operations would be conducted within the enclosed buildings, with the exception of traffic movement, parking, and the loading and unloading of tractor trailers at designated loading bays. Stationary noise from the proposed warehouse use and the conceptual fulfillment/e-commerce use would result in slightly different operational noise levels, mostly related to the differences in parking lot activity at the south side of the building. Accordingly, the analysis below addresses potential stationary noise from implementation of the Project for either warehouse distribution/logistics or fulfillment/e-commerce uses.

Stationary (on-site) noise sources associated with long-term Project operation are expected to include idling trucks, delivery truck and automobile parking, delivery truck backup alarms, roof-top air conditioning units, loading and unloading of dry goods, and parking lot vehicle movements. The Project also is expected to generate noise during the loading and unloading of delivery trailers on-site.

Project-related stationary noise levels were calculated at three (3) representative receptor locations located near the Project site (i.e., Receptors R1, R2, and R3) previously shown on Figure 4.11-2. As discussed under Subsection 4.11.4A, it is not necessary to study every single receptor location surrounding the Project site because receptors located at similar distances from the noise source with similar ground elevations, orientation, and intervening physical conditions (e.g., walls, landscaping) as the three (3) modeled receptor locations would experience the same or very similar noise levels to those disclosed herein. The daytime and nighttime Project stationary noise levels at nearby receptor locations is summarized in Table 4.11-10, *Project Operational (Stationary) Noise – Warehouse Use* and Table 4.11-11, *Project Operational (Stationary) Noise – E-Commerce Use*.



Table 4.11-10 Project Operational (Stationary) Noise – Warehouse Use

Receiver Location ¹	Project Operational Noise Levels (dBA Leq) ²		Noise Level Standards (dBA Leq) ³		Noise Level Standards Exceeded? ⁴	
	Daytime	Nighttime	Daytime	Nighttime	Daytime	Nighttime
R1	44.3	44.1	65	60	No	No
R2	40.1	39.7	65	60	No	No
R3	41.0	39.8	65	60	No	No
at 200'	40.0	39.3	65	60	No	No

¹See Exhibit 8-A of *Technical Appendices K1 and K2* for the receiver locations.

²Proposed Project operational noise levels as shown on Tables 9-3 and 9-4 of *Technical Appendices K1 and K2*.

³Exterior noise level standards for source (commercial) land use, as shown on Table 4-1 of *Technical Appendices K1 and K2*.

⁴Do the estimated Project operational noise source activities exceed the noise level standards listed in Subsection 4.11.5?

"Daytime" = 8:00 a.m. - 10:00 p.m.; "Nighttime" = 10:01 p.m. - 7:59 a.m.

Source: (Urban Crossroads, 2021f, Table 9-5)

Table 4.11-11 Project Operational (Stationary) Noise – E-Commerce Use

Receiver Location ¹	Project Operational Noise Levels (dBA Leq) ²		Noise Level Standards (dBA Leq) ³		Noise Level Standards Exceeded? ⁴	
	Daytime	Nighttime	Daytime	Nighttime	Daytime	Nighttime
R1	44.3	44.1	65	60	No	No
R2	30.9	28.6	65	60	No	No
R3	30.0	28.5	65	60	No	No
at 200'	29.1	27.7	65	60	No	No

¹See Exhibit 8-A of *Technical Appendices K1 and K2* for the receiver locations.

²Proposed Project operational noise levels as shown on Tables 9-3 and 9-4 of *Technical Appendices K1 and K2*.

³Exterior noise level standards for source (commercial) land use, as shown on Table 4-1 of *Technical Appendices K1 and K2*.

⁴Do the estimated Project operational noise source activities exceed the noise level standards listed in Subsection 4.11.5?

"Daytime" = 8:00 a.m. - 10:00 p.m.; "Nighttime" = 10:01 p.m. - 7:59 a.m.

Source: (Urban Crossroads, 2021g, Table 9-5)

As shown in Table 4.11-10 and Table 4.11-11, none of the sensitive receptor locations near the Project site would be exposed to noise levels that exceed the applicable limits established by the Moreno Valley Municipal Code. Accordingly, the Project’s operational noise impact as either a warehouse distribution/logistics use or fulfillment/e-commerce use would be less than significant and no mitigation would be required.

D. Off-Site Traffic Noise Impact Analysis

The analysis below addresses potential off-site traffic noise generated from the Project as either a warehouse distribution/logistics or a fulfillment/e-commerce use. To minimize roadway noise on Encelia Avenue along the Project site’s southern boundary, and as explained in Section 3.0, *Project Description*, the Project Applicant will install rubberized asphalt to cover the entire width of the Encelia Avenue vehicular travel way from the



southwestern Project site boundary to Redlands Boulevard – the 32-foot-wide travel way that would be installed on the north side of the street as part of the Project plus the existing travel way on the southern half of the street. This design feature is assumed in the analysis.

To evaluate off-site noise increases that could result from Project-related traffic on the roadway system, noise levels were modeled for the following scenarios:

- Existing plus Project
- Opening Year (2024)
- General Plan Build-Out (2040)

The Existing plus Project (E+P) analysis determines the Project’s traffic noise impacts under the theoretical scenario where traffic from the Project is added to existing conditions. The E+P scenario is presented to disclose direct impacts to the existing environment as required by CEQA. In the case of the Project, the estimated time period between the commencement of the Project’s CEQA analysis (2020) and Project buildout (2024) is four years. During this time period, traffic conditions are not static – other projects are being constructed, the transportation network is evolving, and traffic patterns are changing. Therefore, the E+P scenario is very unlikely to materialize in real-world conditions when the Project is constructed and becomes operational.

The Opening Year (2024) analysis provides an evaluation of traffic noise conditions at the time the Project becomes operational. The Opening Year (2024) analysis relies on data from the Project’s traffic report, which follows the direction from the City of Moreno Valley’s *Transportation Impact Analysis Preparation Guide for Vehicle Miles Traveled and Level of Service Assessment* by defining “opening year” as existing conditions plus five years. In the case of the Project’s traffic analysis, 2019 represents the existing condition; therefore, the Opening Year is defined as 2024. The Opening Year analyses are utilized to determine the Project’s potential to cumulatively contribute to near-term noise impacts upon consideration of existing traffic + ambient growth + Project traffic + traffic from cumulative development projects.

The Horizon Year (2040) analysis determines the potential for the Project to contribute to long-term noise impacts after the addition of growth expected from build out of local general plans and local cumulative development projects.

Refer to EIR Subsection 4.12, *Transportation*, for information about the distribution pattern of Project-related traffic for either warehouse distribution/logistics or fulfillment/e-commerce uses. The trip distribution for the Project was developed based on anticipated passenger car and truck travel patterns to-and-from the Project site. The traffic distribution pattern for Project-related truck trips and passenger car trips are shown in EIR Subsection 4.12 and discussed in more detail in the Project’s Traffic Impact Analysis included as *Technical Appendices L1 and L2* to this EIR. The analysis below addresses potential off-site traffic noise impacts from implementation of the Project for either warehouse distribution/logistics or fulfillment/e-commerce uses.



1. Existing plus Project Conditions

As summarized in Table 4.11-12, *Existing plus Project Traffic Noise Levels – Warehouse Use*, Project traffic noise under the scenario where the Project is operated as a warehouse distribution/logistics use, would generate a noise level increase of up to 7.7 dBA CNEL on the study area roadway segments. As indicated in Table 4.11-12, noise from Project-related operational traffic would not exceed the applicable significance thresholds under the E+P scenario; therefore, the Project’s contribution to off-site traffic noise would not result in a substantial permanent increase in ambient noise levels. Impacts would be less than significant.

Table 4.11-12 Existing plus Project Traffic Noise Levels – Warehouse Use

ID	Road	Segment	Receiving Existing Land Use ¹	CNEL at Receiving Land Use (dBA) ²			Noise Sensitive Land Use?	Incremental Noise Level Increase Threshold ³	
				No Project	With Project	Project Addition		Limit	Exceeded?
1	Redlands Blvd.	s/o SR-60 Westbound Ramps	Non-Sensitive	71.5	73.0	1.6	No	3.0	No
2	Redlands Blvd.	s/o SR-60 Eastbound Ramps	Non-Sensitive	70.8	72.8	2.1	No	3.0	No
3	Redlands Blvd.	s/o Eucalyptus Av.	Non-Sensitive	70.9	71.0	0.1	No	3.0	No
4	Redlands Blvd.	s/o Dwy. 6	Non-Sensitive	70.9	71.0	0.1	No	3.0	No
5	Redlands Blvd.	n/o Encelia Av.	Non-Sensitive	70.9	71.0	0.2	No	3.0	No
6	Moreno Beach Dr.	s/o SR-60 Westbound Ramps	Non-Sensitive	70.1	70.1	0.0	No	3.0	No
7	Moreno Beach Dr.	s/o SR-60 Eastbound Ramps	Non-Sensitive	72.9	73.7	0.8	No	3.0	No
8	Eucalyptus Av.	e/o Moreno Beach Dr.	Non-Sensitive	63.6	67.9	4.3	No	n/a	No
9	Eucalyptus Av.	e/o Auto Mall Dr.	Non-Sensitive	60.1	66.8	6.7	No	n/a	No
10	Eucalyptus Av.	w/o Aldi Place	Non-Sensitive	59.7	67.5	7.7	No	n/a	No
11	Eucalyptus Av.	w/o Dwy. 5	Non-Sensitive	61.8	68.5	6.7	No	n/a	No
12	Eucalyptus Av.	w/o Redlands Blvd.	Non-Sensitive	61.8	68.5	6.7	No	n/a	No
13	Encilia Av.	e/o Essen Lane	Sensitive	53.1	54.5	1.4	Yes	5.0	No
14	Encilia Av.	e/o Mozart Wy.	Sensitive	53.1	55.8	2.7	Yes	5.0	No
15	Encilia Av.	w/o Redlands Blvd.	Sensitive	56.5	58.8	2.3	Yes	5.0	No

¹Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.

²The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.

³Does the Project create an incremental noise level increase exceeding the significance criteria (listed in Subsection 4.11.5 and on Table 4-1 of *Technical Appendix K1*)?

Source: (Urban Crossroads, 2021f, Table 7-7)

As summarized in Table 4.11-13, *Existing plus Project Traffic Noise Levels – E-Commerce Use*, Project traffic noise under the scenario where the Project is operated as a fulfillment/e-commerce use, would generate a noise level increase of up to 10.1 dBA CNEL on the study area roadway segments. As indicated in Table 4.11-13, noise from Project-related operational traffic would not exceed the applicable significance thresholds under the E+P scenario; therefore, the Project’s contribution to off-site traffic noise would not result in a substantial permanent increase in ambient noise levels. Impacts would be less than significant.



Table 4.11-13 Existing plus Project Traffic Noise Levels – E-Commerce Use

ID	Road	Segment	Receiving Existing Land Use ¹	CNEL at Receiving Land Use (dBA) ²			Noise Sensitive Land Use?	Incremental Noise Level Increase Threshold ³	
				No Project	With Project	Project Addition		Limit	Exceeded?
1	San Timoteo Cyn. Rd.	n/o Alessandro Rd.	Non-Sensitive	73.3	73.4	0.0	No	3.0	No
2	San Timoteo Cyn. Rd.	s/o Live Oak Canyon Rd.	Sensitive	72.6	72.6	0.1	Yes	1.5	No
3	Redlands Blvd.	s/o San Timoteo Cyn. Rd.	Sensitive	72.6	72.6	0.0	Yes	1.5	No
4	Redlands Blvd.	n/o Ironwood Av.	Sensitive	72.4	72.5	0.1	Yes	1.5	No
5	Redlands Blvd.	s/o Ironwood Av.	Sensitive	71.7	71.7	0.1	Yes	1.5	No
6	Redlands Blvd.	s/o SR-60 Westbound Ramps	Non-Sensitive	71.5	73.0	1.6	No	3.0	No
7	Redlands Blvd.	n/o Eucalyptus Av.	Non-Sensitive	70.8	72.9	2.1	No	3.0	No
8	Redlands Blvd.	s/o Eucalyptus Av.	Non-Sensitive	70.9	71.4	0.6	No	3.0	No
9	Redlands Blvd.	n/o Dwy. 7	Non-Sensitive	70.9	71.5	0.7	No	3.0	No
10	Redlands Blvd.	s/o Dwy. 7	Non-Sensitive	70.9	71.5	0.7	No	3.0	No
11	Redlands Blvd.	s/o Encelia Av.	Sensitive	70.1	70.4	0.3	Yes	1.5	No
12	Redlands Blvd.	n/o Alessandro Blvd.	Sensitive	69.6	69.7	0.1	Yes	1.5	No
13	Redlands Blvd.	s/o Alessandro Blvd.	Sensitive	69.2	69.2	0.1	Yes	1.5	No
14	John F Kennedy Dr.	s/o Cactus Av.	Sensitive	67.4	67.5	0.1	Yes	1.5	No
15	Moreno Beach Dr.	n/o SR-60 Westbound Ramps	Non-Sensitive	69.0	69.0	0.0	No	n/a	No
16	Moreno Beach Dr.	s/o SR-60 Eastbound Ramps	Non-Sensitive	72.9	73.7	0.9	No	3.0	No
17	Moreno Beach Dr.	s/o Alessandro Blvd.	Sensitive	71.8	71.9	0.1	Yes	1.5	No
18	Moreno Beach Dr.	s/o Cactus Av.	Sensitive	71.0	71.0	0.1	Yes	1.5	No
19	Moreno Beach Dr.	s/o John F Kennedy Dr.	Sensitive	71.1	71.2	0.1	Yes	1.5	No
20	Iris Av.	e/o Nason St.	Sensitive	71.9	72.0	0.1	Yes	1.5	No
21	Iris Av.	e/o Lasselle St.	Sensitive	73.9	73.9	0.0	Yes	1.5	No
22	Iris Av.	e/o Kitching St.	Sensitive	73.3	73.3	0.0	Yes	1.5	No
23	Eucalyptus Av.	e/o Nason St.	Sensitive	67.7	67.7	0.1	Yes	1.5	No
24	Eucalyptus Av.	e/o Fir Av.	Sensitive	69.4	69.5	0.0	Yes	1.5	No
25	Eucalyptus Av.	w/o Moreno Beach Dr.	Non-Sensitive	63.6	65.2	1.5	No	n/a	No
26	Eucalyptus Av.	e/o Auto Mall Dr.	Non-Sensitive	60.1	67.1	7.0	No	n/a	No
27	Eucalyptus Av.	e/o Dwy. 1	Non-Sensitive	59.7	69.9	10.1	No	n/a	No
28	Eucalyptus Av.	w/o Dwy. 5	Non-Sensitive	61.8	68.7	6.9	No	n/a	No
29	Eucalyptus Av.	w/o Redlands Blvd.	Non-Sensitive	61.8	63.0	1.2	No	n/a	No
30	Eucalyptus Av.	e/o Redlands Blvd.	Non-Sensitive	62.1	62.1	0.0	No	n/a	No
31	Encilia Av.	e/o Essen Lane	Sensitive	53.1	57.1	4.0	Yes	5.0	No
32	Encilia Av.	e/o Mozart Wy.	Sensitive	53.1	59.6	6.5	Yes	5.0	No
33	Encilia Av.	w/o Redlands Blvd.	Non-Sensitive	56.5	62.4	5.8	No	n/a	No
34	Alessandro Blvd.	e/o Lasselle St.	Sensitive	69.4	69.4	0.1	Yes	1.5	No
35	Alessandro Blvd.	e/o Nason St.	Sensitive	69.7	69.7	0.1	Yes	1.5	No
36	Alessandro Blvd.	e/o Moreno Beach Dr.	Sensitive	67.3	67.5	0.2	Yes	1.5	No

¹Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.

²The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.

³Does the Project create an incremental noise level increase exceeding the significance criteria (listed in Subsection 4.11.5 and on Table 4-1 of *Technical Appendix K2*)?

Source: (Urban Crossroads, 2021g, Table 7-7)

2. Opening Year Conditions

As summarized in Table 4.11-14, *Opening Year (2024) Traffic Noise Levels – Warehouse Use*, Project traffic noise under the scenario where the Project is operated as a warehouse distribution/logistics use, would generate a noise level increase of up to 5.6 dBA CNEL on the study area roadway segments. As indicated in Table 4.11-14, noise from Project-related operational traffic would not exceed the applicable significance thresholds under the Opening Year scenario; therefore, the Project’s contribution to off-site traffic noise would not result in a substantial permanent increase in ambient noise levels. Impacts would be less than significant.

Table 4.11-14 Opening Year (2024) Traffic Noise Levels – Warehouse Use

ID	Road	Segment	Receiving Existing Land Use ¹	CNEL at Receiving Land Use (dBA) ²			Noise Sensitive Land Use?	Incremental Noise Level Increase Threshold ³	
				No Project	With Project	Project Addition		Limit	Exceeded?
1	Redlands Blvd.	s/o SR-60 Westbound Ramps	Non-Sensitive	72.5	73.7	1.3	No	3.0	No
2	Redlands Blvd.	s/o SR-60 Eastbound Ramps	Non-Sensitive	72.0	73.6	1.6	No	3.0	No
3	Redlands Blvd.	s/o Eucalyptus Av.	Non-Sensitive	71.6	71.7	0.1	No	3.0	No
4	Redlands Blvd.	s/o Dwy. 6	Non-Sensitive	71.6	71.8	0.1	No	3.0	No
5	Redlands Blvd.	n/o Encelia Av.	Non-Sensitive	71.6	71.8	0.2	No	3.0	No
6	Moreno Beach Dr.	s/o SR-60 Westbound Ramps	Non-Sensitive	71.7	71.7	0.0	No	3.0	No
7	Moreno Beach Dr.	s/o SR-60 Eastbound Ramps	Non-Sensitive	74.2	74.9	0.6	No	3.0	No
8	Eucalyptus Av.	e/o Moreno Beach Dr.	Non-Sensitive	66.0	68.9	2.9	No	n/a	No
9	Eucalyptus Av.	e/o Auto Mall Dr.	Non-Sensitive	62.7	67.5	4.8	No	n/a	No
10	Eucalyptus Av.	w/o Aldi Place	Non-Sensitive	62.5	68.1	5.6	No	n/a	No
11	Eucalyptus Av.	w/o Dwy. 5	Non-Sensitive	63.8	69.0	5.2	No	n/a	No
12	Eucalyptus Av.	w/o Redlands Blvd.	Non-Sensitive	63.8	69.0	5.2	No	n/a	No
13	Encilia Av.	e/o Essen Lane	Sensitive	53.6	54.8	1.3	Yes	5.0	No
14	Encilia Av.	e/o Mozart Wy.	Sensitive	53.6	56.1	2.5	Yes	5.0	No
15	Encilia Av.	w/o Redlands Blvd.	Sensitive	56.9	59.1	2.2	Yes	5.0	No

¹Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.

²The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.

³Does the Project create an incremental noise level increase exceeding the significance criteria (listed in Subsection 4.11.5 and on Table 4-1 of *Technical Appendix KI*)?

Source: (Urban Crossroads, 2021f, Table 7-8)

As summarized in Table 4.11-15, *Opening Year (2024) Traffic Noise Levels – E-Commerce Use*, Project traffic noise under the scenario where the Project is operated as a warehouse distribution/logistics use, would generate a noise level increase of up to 7.7 dBA CNEL on the study area roadway segments. As indicated in Table 4.11-15, noise from Project-related operational traffic would not exceed the applicable significance thresholds under the Opening Year scenario; therefore, the Project’s contribution to off-site traffic noise would not result in a substantial permanent increase in ambient noise levels. Impacts would be less than significant.



Table 4.11-15 Opening Year (2024) Traffic Noise Levels – E-Commerce Use

ID	Road	Segment	Receiving Existing Land Use ¹	CNEL at Receiving Land Use (dBA) ²			Noise Sensitive Land Use?	Incremental Noise Level Increase Threshold ³	
				No Project	With Project	Project Addition		Limit	Exceeded?
1	San Timoteo Cyn. Rd.	n/o Alessandro Rd.	Non-Sensitive	74.0	74.0	0.0	No	3.0	No
2	San Timoteo Cyn. Rd.	s/o Live Oak Canyon Rd.	Sensitive	73.2	73.2	0.0	Yes	1.5	No
3	Redlands Blvd.	s/o San Timoteo Cyn. Rd.	Sensitive	73.3	73.3	0.0	Yes	1.5	No
4	Redlands Blvd.	n/o Ironwood Av.	Sensitive	73.1	73.2	0.1	Yes	1.5	No
5	Redlands Blvd.	s/o Ironwood Av.	Sensitive	72.3	72.4	0.1	Yes	1.5	No
6	Redlands Blvd.	s/o SR-60 Westbound Ramps	Non-Sensitive	72.5	73.8	1.3	No	3.0	No
7	Redlands Blvd.	n/o Eucalyptus Av.	Non-Sensitive	72.0	73.7	1.7	No	3.0	No
8	Redlands Blvd.	s/o Eucalyptus Av.	Non-Sensitive	71.6	72.1	0.5	No	3.0	No
9	Redlands Blvd.	n/o Dwy. 7	Non-Sensitive	71.6	72.2	0.6	No	3.0	No
10	Redlands Blvd.	s/o Dwy. 7	Non-Sensitive	71.6	72.2	0.6	No	3.0	No
11	Redlands Blvd.	s/o Encelia Av.	Sensitive	71.0	71.2	0.2	Yes	1.5	No
12	Redlands Blvd.	n/o Alessandro Blvd.	Sensitive	70.6	70.7	0.1	Yes	1.5	No
13	Redlands Blvd.	s/o Alessandro Blvd.	Sensitive	70.0	70.0	0.1	Yes	1.5	No
14	John F Kennedy Dr.	s/o Cactus Av.	Sensitive	68.3	68.3	0.1	Yes	1.5	No
15	Moreno Beach Dr.	n/o SR-60 Westbound Ramps	Non-Sensitive	70.6	70.6	0.0	No	3.0	No
16	Moreno Beach Dr.	s/o SR-60 Eastbound Ramps	Non-Sensitive	74.2	74.9	0.7	No	3.0	No
17	Moreno Beach Dr.	s/o Alessandro Blvd.	Sensitive	73.2	73.2	0.0	Yes	1.5	No
18	Moreno Beach Dr.	s/o Cactus Av.	Sensitive	72.5	72.5	0.0	Yes	1.5	No
19	Moreno Beach Dr.	s/o John F Kennedy Dr.	Sensitive	73.2	73.3	0.1	Yes	1.5	No
20	Iris Av.	e/o Nason St.	Sensitive	73.8	73.8	0.0	Yes	1.5	No
21	Iris Av.	e/o Lasselle St.	Sensitive	75.3	75.3	0.0	Yes	1.5	No
22	Iris Av.	e/o Kitching St.	Sensitive	74.7	74.7	0.0	Yes	1.5	No
23	Eucalyptus Av.	e/o Nason St.	Sensitive	68.5	68.6	0.0	Yes	1.5	No
24	Eucalyptus Av.	e/o Fir Av.	Sensitive	70.4	70.5	0.0	Yes	1.5	No
25	Eucalyptus Av.	w/o Moreno Beach Dr.	Non-Sensitive	66.0	67.0	1.0	No	n/a	No
26	Eucalyptus Av.	e/o Auto Mall Dr.	Non-Sensitive	62.7	67.7	5.1	No	n/a	No
27	Eucalyptus Av.	e/o Dwy. 1	Non-Sensitive	62.5	70.2	7.7	No	n/a	No
28	Eucalyptus Av.	w/o Dwy. 5	Non-Sensitive	63.8	69.2	5.4	No	n/a	No
29	Eucalyptus Av.	w/o Redlands Blvd.	Non-Sensitive	63.8	64.6	0.8	No	n/a	No
30	Eucalyptus Av.	e/o Redlands Blvd.	Non-Sensitive	65.8	65.8	0.0	No	n/a	No
31	Encilia Av.	e/o Essen Lane	Sensitive	53.6	57.3	3.8	Yes	5.0	No
32	Encilia Av.	e/o Mozart Wy.	Sensitive	53.6	59.7	6.1	Yes	5.0	No
33	Encilia Av.	w/o Redlands Blvd.	Non-Sensitive	56.9	62.5	5.5	No	n/a	No
34	Alessandro Blvd.	e/o Lasselle St.	Sensitive	71.7	71.7	0.0	Yes	1.5	No
35	Alessandro Blvd.	e/o Nason St.	Sensitive	72.3	72.3	0.0	Yes	1.5	No
36	Alessandro Blvd.	e/o Moreno Beach Dr.	Sensitive	68.7	68.9	0.2	Yes	1.5	No

¹Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.

²The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.

³Does the Project create an incremental noise level increase exceeding the significance criteria (listed in Subsection 4.11.5 and on Table 4-1 of *Technical Appendix K2*)?

Source: (Urban Crossroads, 2021g, Table 7-8)



3. General Plan Build-Out Conditions

As summarized in Table 4.11-16, *General Plan Build-Out (2040) Traffic Noise Levels – Warehouse Use*, Project traffic noise under the scenario where the Project is operated as a warehouse distribution/logistics use, would generate a noise level increase of up to 2.9 dBA CNEL on the study area roadway segments. As indicated in Table 4.11-16, noise from Project-related operational traffic would not exceed the applicable significance thresholds under the General Plan Build-Out scenario; therefore, the Project’s contribution to off-site traffic noise would not result in a substantial permanent increase in ambient noise levels. Impacts would be less than significant.

Table 4.11-16 General Plan Build-Out (2040) Traffic Noise Levels – Warehouse Use

ID	Road	Segment	Receiving Existing Land Use ¹	CNEL at Receiving Land Use (dBA) ²			Noise Sensitive Land Use?	Incremental Noise Level Increase Threshold ³	
				No Project	With Project	Project Addition		Limit	Exceeded?
1	Redlands Blvd.	s/o SR-60 Westbound Ramps	Non-Sensitive	74.0	74.9	0.9	No	3.0	No
2	Redlands Blvd.	s/o SR-60 Eastbound Ramps	Non-Sensitive	74.0	75.1	1.1	No	3.0	No
3	Redlands Blvd.	s/o Eucalyptus Av.	Non-Sensitive	73.9	74.0	0.1	No	3.0	No
4	Redlands Blvd.	s/o Dwy. 6	Non-Sensitive	73.9	74.0	0.1	No	3.0	No
5	Redlands Blvd.	n/o Encelia Av.	Non-Sensitive	73.9	74.0	0.1	No	3.0	No
6	Moreno Beach Dr.	s/o SR-60 Westbound Ramps	Non-Sensitive	73.0	73.0	0.0	No	3.0	No
7	Moreno Beach Dr.	s/o SR-60 Eastbound Ramps	Non-Sensitive	75.5	76.0	0.5	No	3.0	No
8	Eucalyptus Av.	e/o Moreno Beach Dr.	Non-Sensitive	69.0	70.7	1.7	No	n/a	No
9	Eucalyptus Av.	e/o Auto Mall Dr.	Non-Sensitive	67.1	69.5	2.4	No	n/a	No
10	Eucalyptus Av.	w/o Aldi Place	Non-Sensitive	67.0	69.8	2.9	No	n/a	No
11	Eucalyptus Av.	w/o Dwy. 5	Non-Sensitive	68.0	70.7	2.8	No	n/a	No
12	Eucalyptus Av.	w/o Redlands Blvd.	Non-Sensitive	68.0	70.7	2.8	No	n/a	No
13	Encelia Av.	e/o Essen Lane	Sensitive	65.8	65.9	0.1	Yes	1.5	No
14	Encelia Av.	e/o Mozart Wy.	Sensitive	65.8	66.0	0.2	Yes	1.5	No
15	Encelia Av.	w/o Redlands Blvd.	Sensitive	66.1	66.4	0.3	Yes	1.5	No

¹Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.

²The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.

³Does the Project create an incremental noise level increase exceeding the significance criteria (listed in Subsection 4.11.5 and on Table 4-1 of *Technical Appendix KI*)?

Source: (Urban Crossroads, 2021f, Table 7-9)

As summarized in Table 4.11-17, *General Plan Build-Out (2040) Traffic Noise Levels – E-Commerce Use*, Project traffic noise under the scenario where the Project is operated as a warehouse distribution/logistics use, would generate a noise level increase of up to 4.4 dBA CNEL on the study area roadway segments. As indicated in Table 4.11-17, noise from Project-related operational traffic would not exceed the applicable significance thresholds under the General Plan Build-Out scenario; therefore, the Project’s contribution to off-site traffic noise would not result in a substantial permanent increase in ambient noise levels. Impacts would be less than significant.



Table 4.11-17 General Plan Build-Out (2040) Traffic Noise Levels – E-Commerce Use

ID	Road	Segment	Receiving Existing Land Use ¹	CNEL at Receiving Land Use (dBA) ²			Noise Sensitive Land Use?	Incremental Noise Level Increase Threshold ³	
				No Project	With Project	Project Addition		Limit	Exceeded?
1	San Timoteo Cyn. Rd.	n/o Alessandro Rd.	Non-Sensitive	75.2	75.2	0.0	No	3.0	No
2	San Timoteo Cyn. Rd.	s/o Live Oak Canyon Rd.	Sensitive	74.0	74.1	0.0	Yes	1.5	No
3	Redlands Blvd.	s/o San Timoteo Cyn. Rd.	Sensitive	74.3	74.3	0.0	Yes	1.5	No
4	Redlands Blvd.	n/o Ironwood Av.	Sensitive	73.7	73.7	0.0	Yes	1.5	No
5	Redlands Blvd.	s/o Ironwood Av.	Sensitive	73.4	73.5	0.0	Yes	1.5	No
6	Redlands Blvd.	s/o SR-60 Westbound Ramps	Non-Sensitive	74.0	74.9	1.0	No	3.0	No
7	Redlands Blvd.	n/o Eucalyptus Av.	Non-Sensitive	74.0	75.2	1.1	No	3.0	No
8	Redlands Blvd.	s/o Eucalyptus Av.	Non-Sensitive	73.9	74.2	0.3	No	3.0	No
9	Redlands Blvd.	n/o Dwy. 7	Non-Sensitive	73.9	74.2	0.3	No	3.0	No
10	Redlands Blvd.	s/o Dwy. 7	Non-Sensitive	73.9	74.3	0.4	No	3.0	No
11	Redlands Blvd.	s/o Encelia Av.	Sensitive	72.1	72.3	0.2	Yes	1.5	No
12	Redlands Blvd.	n/o Alessandro Blvd.	Sensitive	71.8	71.9	0.1	Yes	1.5	No
13	Redlands Blvd.	s/o Alessandro Blvd.	Sensitive	70.2	70.2	0.1	Yes	1.5	No
14	John F Kennedy Dr.	s/o Cactus Av.	Sensitive	70.9	70.9	0.0	Yes	1.5	No
15	Moreno Beach Dr.	n/o SR-60 Westbound Ramps	Non-Sensitive	71.9	72.0	0.0	No	3.0	No
16	Moreno Beach Dr.	s/o SR-60 Eastbound Ramps	Non-Sensitive	75.5	76.0	0.5	No	3.0	No
17	Moreno Beach Dr.	s/o Alessandro Blvd.	Sensitive	74.2	74.2	0.0	Yes	1.5	No
18	Moreno Beach Dr.	s/o Cactus Av.	Sensitive	73.1	73.2	0.0	Yes	1.5	No
19	Moreno Beach Dr.	s/o John F Kennedy Dr.	Sensitive	74.3	74.4	0.0	Yes	1.5	No
20	Iris Av.	e/o Nason St.	Sensitive	75.7	75.7	0.0	Yes	1.5	No
21	Iris Av.	e/o Lasselle St.	Sensitive	77.0	77.0	0.0	Yes	1.5	No
22	Iris Av.	e/o Kitching St.	Sensitive	76.1	76.1	0.0	Yes	1.5	No
23	Eucalyptus Av.	e/o Nason St.	Sensitive	72.1	72.2	0.0	Yes	1.5	No
24	Eucalyptus Av.	e/o Fir Av.	Sensitive	72.6	72.6	0.0	Yes	1.5	No
25	Eucalyptus Av.	w/o Moreno Beach Dr.	Non-Sensitive	69.0	69.5	0.5	No	5.0	No
26	Eucalyptus Av.	e/o Auto Mall Dr.	Non-Sensitive	67.1	69.7	2.5	No	5.0	No
27	Eucalyptus Av.	e/o Dwy. 1	Non-Sensitive	67.0	71.4	4.4	No	5.0	No
28	Eucalyptus Av.	w/o Dwy. 5	Non-Sensitive	68.0	70.8	2.9	No	5.0	No
29	Eucalyptus Av.	w/o Redlands Blvd.	Non-Sensitive	68.0	68.3	0.3	No	5.0	No
30	Eucalyptus Av.	e/o Redlands Blvd.	Non-Sensitive	70.9	70.9	0.0	No	3.0	No
31	Encilia Av.	e/o Essen Lane	Sensitive	65.8	66.1	0.3	Yes	1.5	No
32	Encilia Av.	e/o Mozart Wy.	Sensitive	65.8	66.5	0.7	Yes	1.5	No
33	Encilia Av.	w/o Redlands Blvd.	Non-Sensitive	66.1	67.3	1.2	No	5.0	No
34	Alessandro Blvd.	e/o Lasselle St.	Sensitive	74.6	74.7	0.0	Yes	1.5	No
35	Alessandro Blvd.	e/o Nason St.	Sensitive	74.2	74.2	0.0	Yes	1.5	No
36	Alessandro Blvd.	e/o Moreno Beach Dr.	Sensitive	74.2	74.3	0.0	Yes	1.5	No

¹Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.

²The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.

³Does the Project create an incremental noise level increase exceeding the significance criteria (listed in Subsection 4.11.5 and on Table 4-1 of *Technical Appendix K2*)?

Source: (Urban Crossroads, 2021g, Table 7-10)



Threshold b: Would the Project result in generation of excessive groundborne vibration or groundborne noise levels?

The Moreno Valley Municipal Codes does not define the numeric level at which a development project’s vibration levels are considered “excessive.” For purposes of this EIR, the metric used to evaluate whether the Project’s vibration levels are considered “excessive” during either construction or operation is adapted from FTA, *Transit Noise and Vibration Impact Assessment Manual* (Urban Crossroads, 2021f, pp. 22, 25-26; Urban Crossroads, 2021g, pp. 22, 25-26). Accordingly, the FTA criterion of 78 VdB is used to assess impacts due to groundborne vibration during construction activities and 78 VdB for daytime hours and 72 VdB for nighttime hours are used to assess impacts due to groundborne vibration during operational activities. (FTA, 2006).

A. Construction Analysis

Construction activities on the Project site would utilize construction equipment that has the potential to generate vibration. Vibration levels resulting from construction activities on the Project site were calculated at 200 feet of the Project site’s property line at the same three (3) receiver locations that were evaluated in the construction noise analysis (refer to Figure 4.11-2). The three (3) representative receiver locations include existing residential homes located north and south of the Project site. Table 4.11-18, *Project Construction Vibration Levels*, summarizes Project construction vibration levels at the modeled receiver locations and the significance of the vibration levels using the FTA vibration level significance threshold of 78 VdB.

Table 4.11-18 Project Construction Vibration Levels

Receiver Location ¹	Distance to Construction Activity (Feet)	Receiver Vibration Levels (VdB) ²					Threshold VdB ³	Threshold Exceeded? ⁴
		Small Bulldozer	Jack-hammer	Loaded Trucks	Large Bulldozer	Highest Vibration Levels		
R1	1,651'	3.4	24.4	31.4	32.4	32.4	78	No
R2	126'	36.9	57.9	64.9	65.9	65.9	78	No
R3	118'	37.8	58.8	65.8	66.8	66.8	78	No
at 200'	200'	30.9	51.9	58.9	59.9	59.9	78	No

¹Noise receiver locations are shown on Exhibit 10-A of *Technical Appendices K1 and K2*.

²Based on the Vibration Source Levels of Construction Equipment included on Table 6-8 of *Technical Appendices K1 and K2*.

³FTA Transit Noise and Vibration Impact Assessment maximum acceptable vibration criteria as listed in Subsection 4.11.5 and shown on Table 4-1 of *Technical Appendices K1 and K2*.

⁴Does the vibration level exceed the maximum acceptable vibration threshold?

Source: (Urban Crossroads, 2021f, Table 10-4; Urban Crossroads, 2021g, Table 10-4)

As shown in Table 4.11-18, none of the receiver locations in the vicinity of the Project site would be exposed to vibration levels that exceed the applicable limits established by the FTA. Accordingly, Project construction would not generate temporary, excessive groundborne vibration or noise levels and a less-than-significant impact would occur.



B. Sheet Pile System Construction Analysis

Sheet pile system construction activities on the Project site would utilize construction equipment that has the potential to generate vibration. Vibration resulting from sheet pile system construction activities on the Project site, assuming non-impact equipment use, were calculated at 200 feet of the Project site’s property line at the same three (3) representative receiver locations that were evaluated in the sheet pile system construction noise analysis (refer to Figure 4.11-3). The three (3) receiver locations include existing residential homes located south of the Project site. Table 4.11-19, *Project Sheet Pile System Construction Noise Levels*, summarizes Project sheet pile system construction vibration levels at the three (3) modeled receiver locations and the significance of the vibration levels using the FTA vibration level significance threshold of 78 VdB.

Table 4.11-19 Sheet Pile System Construction Vibration Levels

Receiver Location¹	Distance to Construction Activity (Feet)	Receiver Vibration Levels (VdB)²	Threshold VdB³	Threshold Exceeded?⁴
P1	124'	72.1	78	No
P2	142'	70.4	78	No
P3	250'	63.0	78	No
at 200'	200'	65.9	78	No

¹Noise receiver locations are shown on Exhibit 10-B of *Technical Appendices K1 and K2*.

²Based on the Vibration Source Levels of Construction Equipment included on Table 6-8 of *Technical Appendices K1 and K2*.

³FTA Transit Noise and Vibration Impact Assessment maximum acceptable vibration criteria as listed in Subsection 4.11.5 and shown on Table 4-1 of *Technical Appendices K1 and K2*.

⁴Does the vibration level exceed the maximum acceptable vibration threshold?

Source: (Urban Crossroads, 2021f, Table 10-7; Urban Crossroads, 2021g, Table 10-7)

As shown in Table 4.11-19, none of the receiver locations in the vicinity of the Project site would be exposed to vibration levels that exceed the applicable limits established by the FTA. Accordingly, the Project’s sheet pile system construction activities using non-impact equipment would not generate temporary, excessive groundborne vibration or noise levels and a less-than-significant impact would occur.

C. Operational Analysis

Under long-term conditions, the operational activities of the Project, whether from a warehouse/distribution logistics use or a fulfillment center/e-commerce use would not include or require equipment, facilities, or activities that would result in perceptible ground-borne vibration. Trucks would travel to and from the Project site on surrounding roadways; however, vibration and groundborne noise levels for heavy trucks operating at the posted speed limits on smooth, paved surfaces – as is expected on the Project site and surrounding roadways – rarely exceed 70 VdB, which is substantially lower than the applicable significance threshold (78 VdB for daytime hours and 72 VdB for nighttime hours) (Urban Crossroads, 2021f, p. 60; Urban Crossroads, 2021g, pp. 63-64). Accordingly, Project operation would not generate excessive groundborne vibration or groundborne noise levels and impacts would be less than significant.



Threshold c: *For a project located within the vicinity of a private airstrip or an airport land use plan, or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?*

The Project site is not located within two (2) miles of a public airport or within an airport land use compatibility plan. The closest airport is the MARB/IP Airport, located approximately 5.7 miles northwest of the Project site. (ALUC, 2014a, Map MA-1; Google Earth Pro, 2020) Accordingly, the Project would not expose people working on the Project site to excessive noise levels. Impacts would be less than significant.

4.11.7 CUMULATIVE IMPACT ANALYSIS

The cumulative impact analysis considers construction and operation of the Project in conjunction with other development projects in the vicinity of the Project site and resulting from full General Plan buildout in the Cities of Moreno Valley, Perris, Hemet, Beaumont, Riverside, and nearby unincorporated areas in the County of Riverside.

A. Construction Noise

There are no known active, pending, or planned construction projects in the immediate vicinity of the Project site that would overlap with the Project's proposed construction schedule. Although the Project site is adjacent to the approved World Logistics Center site, simultaneous construction on the Project site and the World Logistics Center site is not expected to occur because the City of Moreno Valley only approved a Specific Plan for the World Logistics Center and did not approve any specific development actions (i.e., Plot Plans). Because of the time required to prepare a Plot Plan, move through the City's discretionary review process, be considered by the City of Moreno Valley hearing bodies, and then go through the City of Moreno Valley ministerial building permit review process, it is unlikely that any development proposals on the World Logistics Center site could catch up to the Project and be under concurrent construction. Furthermore, the World Logistics Center property is very large – more than 2,600 acres – and it is unknown where on the World Logistics site development will first occur and if these locations are close enough to the Project site to result in substantial cumulative construction noise.

Notwithstanding, in the unlikely event that construction on the Project site and the World Logistics Center site occur simultaneously and in a location on the World Logistics Center site that is potentially close enough to the Project site for construction noise to be additive (within the area identified as "Plot 1" in the World Logistics EIR), the effect to the sensitive receptors evaluated in this EIR – Receivers R1 through R3 – would not be cumulatively considerable in consideration of the less-than-significant noise levels from Project-related construction activities and the mitigated construction noise levels from the World Logistics Center. Pursuant to Mitigation Measure 4.12.6.1A from the World Logistics Center EIR, construction at the World Logistics Center site is required to abide by specific activity protocols and equipment restrictions and construct a temporary noise barrier, all of which would substantially reduce construction noise from the World Logistics Center site at the sensitive receptor locations evaluated in this EIR. In addition, the aforementioned mitigation measure from the World Logistics Center EIR prohibits nighttime construction activities on the World Logistics Center site within 800 feet of sensitive receptors. Due to noise attenuation over distance, there is no potential for noise levels from nighttime construction activities on the World Logistics Center site to combine



with noise levels from nighttime construction activities on the Project site and expose Receivers R1 through R3 to excessive, adverse noise. Accordingly, there is no potential for the Project to contribute to the exposure of nearby sensitive receptors to substantial temporary increases in daytime or nighttime ambient noise levels.

B. Stationary Noise

The analysis presented for Threshold “a” addresses the Project’s contribution of noise to existing cumulative noise sources (i.e., ambient noise) in the Project area. As previously shown in Table 4.11-10 and Table 4.11-11, the Project’s noise contribution would not be perceptible to noise-sensitive receptors in the Project area during daytime or nighttime hours. The Project’s permanent stationary noise impacts would not be cumulatively considerable.

C. Traffic Noise

The analysis presented under Threshold “a” evaluates the Project’s traffic noise contribution along study area roadways with consideration of near-term (Year 2024) and long-term (Year 2040) cumulative development. As summarized in Table 4.11-12 through Table 4.11-17, the Project’s traffic noise contributions along study area roadways would not exceed applicable significance thresholds and, therefore, would not be cumulatively-considerable under near- or long-term conditions.

D. Groundborne Vibration and Noise

During construction, the Project’s peak vibration impacts would occur during the grading phase when large pieces of equipment, like bulldozers, are operating on-site. (During the non-grading phases of Project construction, when smaller pieces of equipment are used on-site, the Project’s vibration would be minimal.) Also, during sheet pile construction, non-impact pile driving equipment would be used to minimize vibration noise. Vibration effects diminish rapidly from the source; therefore, the only reasonable sources of cumulative vibration in the vicinity of the Project site could occur on properties abutting these sites. As described above, there are no known active or pending construction projects abutting the Project site that would overlap with the Project’s proposed construction schedule. Accordingly, there is no potential for the Project to contribute to the exposure of persons to substantial temporary groundborne vibration or noise.

Under long-term conditions, the Project would not include or require equipment or activities that would result in perceptible groundborne vibration beyond the Project site. Trucks would travel to and from the Project site along local roadways; however, vibration levels for heavy trucks operating at the posted speed limits on paved surfaces are not perceptible beyond the roadway. The Project would not cumulatively-contribute to the exposure of persons to excessive groundborne vibration or noise levels during long-term operation.

E. Airport Noise

The Project would not involve the construction, operation, or use of any public airports or public use airports. There are no conditions associated with implementation of the Project that would contribute airport noise or exposure of additional people to unacceptable levels of airport noise. Accordingly, the Project would have no potential to cumulatively contribute to impacts associated with noise from a public airport, public use airport, or private airstrip. Additionally, the Project Site and the immediately surrounding area are not subject to



substantial airport- or air traffic-related noise. Accordingly, there is no potential for cumulative development to expose persons residing or working in the Project area to excessive airport-related noise levels.

4.11.8 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold a: Less-than-Significant Impact. The Project would generate short-term construction and long-term operational noise but would not generate noise levels during construction and/or operation that exceed the standards established by the City of Moreno Valley General Plan or Municipal Code.

Threshold b: Less-than-Significant Impact. The Project's construction and operational activities would not result in a perceptible groundborne vibration or noise.

Threshold c: Less-than-Significant Impact. The Project site is not located within an area exposed to high levels of noise from the MARB/IP Airport. As such, the Project would not expose people to excessive noise levels associated with a public airport or public use airport.

4.11.9 PROJECT DESIGN FEATURES

Impacts would be less than significant; therefore, mitigation is not required. Several project design features will be implemented to ensure that noise and vibration levels are less than significant.

1. Prior to the issuance of any grading, building or other permit that would authorize pile driving, the Project Applicant or grading contractor shall provide evidence to the City demonstrating that non-impact pile driving equipment (e.g., drilling or other non-impact alternatives), such as an ABI drill rig, will be used at the Project site. Only non-impact pile driving equipment shall be authorized for use to reduce vibration effects.
2. Prior to the issuance of any grading, building, road improvement, or other permit that would authorize improvements to Encelia Avenue, the City shall verify that the applicant will improve the right-of-way width from the Project's southwestern boundary to Redlands Boulevard with rubberized asphalt. To minimize roadway noise, the rubberized asphalt is to cover the entire width of the Encelia Avenue vehicular travel way – the 32-foot-wide travel way that would be installed on the north side of the street as part of the Project plus the existing travel way on the southern half of the street. The City shall not grant an occupancy permit for the building until the rubberized asphalt has been installed.



4.12 TRANSPORTATION

The analysis in this Subsection is primarily based on two (2) reports prepared by Translutions, Inc. titled, 1) “Moreno Valley Trade Center Traffic Impact Analysis Warehouse Scenario,” dated November 5, 2020; and 2) “Moreno Valley Trade Center Traffic Impact Analysis E-Commerce Scenario,” dated November 5, 2020. The reports are included as *Technical Appendices L1 and L2*, respectively, to this EIR. The Project’s traffic impact analyses (TIA) are prepared in accordance with the City of Moreno Valley’s *Transportation Impact Analysis Preparation Guide for Vehicle Miles Traveled and Level of Service Assessment* (June 2020). The analysis in this Subsection also relies on two (2) memoranda prepared by Translutions, Inc. titled, 1) “Moreno Valley Trade Center Trip Generation Comparison (Warehouse Scenario),” dated January 4, 2021; and 2) *Moreno Valley Trade Center Trip Generation Comparison (E-Commerce Scenario)*,” dated January 4, 2021. These memoranda are included as *Technical Appendices L3 and L4*, respectively, to this EIR. Refer to Section 7.0, *References*, for a complete list of references.

This Subsection assesses transportation impacts resulting from implementation of the Project. In accordance with Senate Bill (SB) 743, further discussed under Subsection 4.12.5 below, the California Natural Resources Agency (CNRA) adopted changes to the CEQA Guidelines in December 2018, which identify that starting on July 1, 2020, vehicle miles traveled (VMT) is the appropriate metric to evaluate a project’s transportation impacts. As of December 2018, when the revised CEQA Guidelines were adopted, automobile delay, as measured by “level of service” (LOS) and other similar metrics, no longer constitutes a significant environmental effect under CEQA. Lead agencies in California are required to use VMT to evaluate project-related transportation impacts. The VMT analysis for the Project is provided as Sections 11.0 of *Technical Appendices L1 and L2*.

Notwithstanding the VMT method of analysis for CEQA purposes, the City of Moreno Valley traffic study guidelines requires a traffic analysis based on LOS, which the City uses in part to determine transportation improvement obligations of development projects. However, CEQA Guidelines Section 15064.3, effective January 1, 2019, “describes specific considerations for evaluating a project’s transportation impacts” and provides that, except for roadway capacity projects, “a project’s effect on automobile delay (or LOS)” shall not constitute a significant environmental impact” (CEQA Guidelines Section 15064.3(a)).

Although not specifically relevant to an analysis of CEQA transportation impacts, the City of Moreno Valley General Plan’s Circulation Element discusses LOS and General Plan Objective 5.3 states: “Maintain Level of Service (LOS) “C” on roadway links, wherever possible, and LOS “D” in the vicinity of SR 60 and high employment centers.” For this reason, although LOS cannot be used to make a conclusion of a significant environmental effect, the Project’s impact to transportation facilities based on LOS is provided herein for informational purposes.

4.12.1 EXISTING VEHICLE MILES TRAVELED

The City of Moreno Valley’s method of VMT analysis for industrial projects is based on VMT per employee for home-based work trips. The average number of miles an employee travels in the City of Moreno Valley per day in 2020 by automobile, according to available data, is 11.41 miles (Translutions, 2020a, p. 61; Translutions, 2020b, p. 75).



4.12.2 EXISTING TRANSPORTATION SYSTEM

A. Existing Roadway System

The Project site is located immediately north of Encelia Avenue, immediately west of Redlands Boulevard, and immediately south of Eucalyptus Avenue. Existing traffic on nearby roadways consist of both passenger vehicles and trucks passing through the area and accessing nearby land uses. The primary regional vehicular travel route serving the Project area is SR-60, which is located approximately 0.25-mile north of the Project site. The Project site is located approximately 0.25 roadway mile southwest of the Redlands Boulevard on/off-ramp to SR-60 and approximately 0.8 roadway mile southeast of the Moreno Beach Drive on/off-ramp to SR-60. SR-60 provides access to I-215, which is located approximately 7.3 miles to the northwest of the Project site (Google Earth Pro, 2020). An approximately 4.5-mile segment of SR-60 between Gilman Springs Road (just east of the Project site) to 1.4 miles west of Jack Rabbit Trail in unincorporated Riverside County is in the process of being widened to construct an eastbound truck climbing lane and a westbound truck descending lane (RCTC, 2020). In addition, shoulders will be widened and sight distance will be improved by flattening curves in the roadway (ibid.).

B. Existing Truck Routes

The City of Moreno Valley has designated truck routes. In the vicinity of the Project site, Redlands Boulevard is a designated truck route from the SR-60 ramps, north to the City boundary. Redlands Boulevard abuts the Project site to the east, south of SR-60 (Moreno Valley, 2019). Other designated truck routes near the Project site include but are not limited to Alessandro Boulevard, Moreno Beach Drive between SR-60 and Alessandro Boulevard, World Logistics Parkway, and Gilman Springs Road (ibid.).

C. Existing Transit Services

The vicinity of the Project site is served primarily by Riverside Transit Agency (RTA), a public transit agency serving various jurisdictions within Riverside County. RTA provides local bus service in the Project area via Route 20 on Alessandro Boulevard, Moreno Beach Drive, and Iris Avenue, via Route 31 on Eucalyptus Avenue from Moreno Beach Drive to Kitching Street, and via Route 15 along 9th Street and Central Avenue (Translutions, 2020a, pp. 19-20; Translutions, 2020b, pp. 19-20). The nearest transit stop is located approximately 1.5 miles southwest of the Project site on Eucalyptus Avenue via Route 31 (Google Earth Pro, 2020).

The area also is served by Metrolink, a commuter rail service operated by the Southern California Regional Rail Authority (SCRRA). Metrolink train service is available between the counties of Ventura, Los Angeles, San Bernardino, Orange, Riverside, and north San Diego. The City of Moreno Valley is served by the Moreno Valley/March Field Metrolink Station, at 14160 Meridian Parkway and approximately 8.0 miles southwest of the Project site.

D. Existing Bicycle and Pedestrian Facilities

Field observations collected by Translutions indicate nominal pedestrian and bicycle activity near the Project site. There are no existing bicycle lanes on Redlands Boulevard bordering the Project site to the east or on Encelia Avenue bordering the Project site to the south. Regarding sidewalks and trails, to the south of the



Project site there is a sidewalk on the south side of Encelia Avenue between Shubert Street and the western Project boundary, and there is a sidewalk system within the residential community to the south. To the north of the Project site along the frontage of the Aldi warehouse development, there is a new sidewalk and a multi-use trail on the north side of Eucalyptus Avenue that were recently installed.

4.12.3 STUDY AREA DESCRIPTION FOR LEVEL OF SERVICE ANALYSIS

The geographic area (hereafter referred to as the “Project Study Area” or “Study Area”) that was evaluated for Project-related effects to the transportation network for purposes of a LOS evaluation is defined as follows:

A. Intersections

Pursuant to its traffic study guidelines, the City of Moreno Valley requires a performance analysis of intersections that would receive 50 or more peak hour trips from a development project. A “peak hour trip” is a trip that occurs between the hours of 7:00 AM and 9:00 AM (AM peak hour) or between the hours of 4:00 PM and 6:00 PM (PM peak hour).

1. *Warehouse Distribution/Logistics*

Fifteen (15) intersections are located within the Project Study Area based on the 50 peak hour trip criterion (Translutions, 2020a, p. 1). These intersections are identified on Figure 4.12-1, *Study Area Intersection Locations – Warehouse Distribution/Logistics*, and are listed in Table 4.12-1, *Study Area Intersection Locations – Warehouse Distribution/Logistics*. The Study Area includes intersections under the jurisdictions of the City of Moreno Valley as well as the California Department of Transportation (Caltrans).

2. *Fulfillment/E-Commerce*

Thirty-four (34) intersections are located within the Project Study Area based on the 50 peak hour trip criterion (Translutions, 2020b, pp. 1, 3). These intersections are identified on Figure 4.12-2, *Study Area Intersection Locations – Fulfillment/E-Commerce*, and are listed in Table 4.12-2, *Study Area Intersection Locations – Fulfillment/E-Commerce*. The Study Area includes intersections under the jurisdictions of the City of Moreno Valley as well as Caltrans.

B. Roadway Segments

1. *Warehouse Distribution/Logistics*

Fifteen (15) roadway segments are located within the Project Study Area that would receive the highest volume of Project traffic (Translutions, 2020a, pp. 1, 3). These segments are identified on Figure 4.12-3, *Study Area Roadway Segment Location – Warehouse Distribution/Logistics* and are listed in Table 4.12-3, *Study Area Roadway Segments – Warehouse Distribution/Logistics*. The Study Area includes roadway segments under the jurisdictions of the City of Moreno Valley as well as Caltrans.

2. *Fulfillment/E-Commerce*

Thirty-six (36) roadway segments are located within the Project Study Area that would receive the highest volume of Project traffic (Translutions, 2020b, pp. 3-4). These segments are identified on Figure 4.12-4, *Study*



Area Roadway Segment Location – Fulfillment/E-Commerce and are listed in Table 4.12-4, *Study Area Roadway Segments – Fulfillment/E-Commerce*. The Study Area includes roadway segments under the jurisdictions of the City of Moreno Valley as well as Caltrans.

4.12.4 EXISTING LEVELS OF SERVICE

Weekday AM and PM peak hour traffic count data was collected at Study Area intersections and roadway segments on October 30, 2019. The raw manual peak hour turning movement traffic count data sheets are included in Appendix B of *Technical Appendices L1 and L2*. On the date that traffic counts were collected, there were no atypical traffic conditions (e.g. construction activity or detour routes) and nearby schools were in session and operating on normal schedules (Translutions, 2020a, p. 16, Appendix B; Translutions, 2020b, p. 17, Appendix B).

The traffic count data includes a tabulation of passenger cars, 2-axle trucks, 3-axle trucks, and 4-or-more axle trucks. Larger vehicles take up more space on the roadway and take longer to accelerate and decelerate than smaller passenger vehicles; therefore, converting larger vehicles into passenger car equivalents (PCEs) allows for the real-world effect that larger vehicles have on roadways to be accurately reflected in the TIA and for traffic to be represented as a standardized unit. For purposes of this analysis, a PCE factor of 1.5 is applied to 2-axle truck trips, 2.0 is applied to 3-axle truck trips, and 3.0 is applied to 4 and 4+ axle truck trips (Translutions, 2020a, Table A; Translutions, 2020b, Table A). These PCE factors follow the recommendations of the City’s traffic study guidelines.

Existing (2019) AM and PM peak hour intersection volumes are shown on Figure 4.12-5, *Existing Peak Hour Traffic Volumes (PCE) – Warehouse Distribution/Logistics* and Figure 4.12-6, *Existing Peak Hour Traffic Volumes (PCE) – Fulfillment/E-Commerce*. Except where specifically noted, all of the vehicle trips/traffic volumes presented in this EIR Subsection, including those illustrated on Figure 4.12-5 and Figure 4.12-6, are shown in terms of PCE.

A. Existing Intersection LOS Conditions

Warehouse Distribution/Logistics

Existing peak hour traffic performance at existing Study Area intersections is summarized in Table 4.12-9, *Existing plus Project Intersection Analysis – Warehouse Distribution/Logistics*. The traffic performance levels shown in Table 4.12-9 were calculated using the analysis methodologies presented later in this Subsection (refer to Subsection 4.12.6). As shown in Table 4.12-9, all but one intersection in the Study Area operate at acceptable LOS during peak hours under existing conditions, with the exception of Moreno Beach Drive/SR-60 Eastbound Ramps (Intersection #2), which operates at LOS F in the AM & PM peak hours.

#	Intersection	AM Peak LOS	PM Peak LOS
2	Moreno Beach Drive/SR-60 Eastbound Ramps	F	F



Fulfillment/E-Commerce

Existing peak hour traffic performance at existing Study Area intersections is summarized in Table 4.12-11, *Existing plus Project Intersection Analysis – Fulfillment/E-Commerce*. The traffic performance levels shown in Table 4.12-11 were calculated using the analysis methodologies presented later in this Subsection (refer to Subsection 4.12.6). As shown in Table 4.12-11, all but five intersections in the Study Area operate at acceptable LOS during peak hours under existing conditions. The five intersections are:

#	Intersection	AM Peak LOS	PM Peak LOS
10	Alessandro Road/San Timoteo Canyon Road	F	F
16	Moreno Beach Drive/SR-60 Eastbound Ramps	F	-
17	Live Oak Canyon Road/San Timoteo Canyon Road	F	F
18	Redlands Boulevard/San Timoteo Canyon Road	F	F
32	Redlands Boulevard/Alessandro Boulevard	D	D

B. Existing Roadway Segment Conditions

Warehouse Distribution/Logistics

Existing roadway segment operations, which were calculated for Study Area roadway segments using the analysis methodologies presented in Subsection 4.12.6, are summarized in Table 4.12-10, *Existing plus Project Roadway Segment Analysis – Warehouse Distribution/Logistics*. As shown in Table 4.12-10, all roadway segments in the Study Area operate at acceptable LOS under existing conditions, with the exception of the following:

#	Roadway Segment	LOS
1	Redlands Boulevard from SR-60 Westbound Ramps to SR-60 Eastbound Ramps	E
2	Redlands Boulevard from SR-60 Eastbound Ramps to Eucalyptus Avenue	E
3	Redlands Boulevard from Eucalyptus Avenue to Driveway 6	F
4	Redlands Boulevard from Driveway 6 to Driveway 7	F
5	Redlands Boulevard from Driveway 7 to Encelia Avenue	F
6	Moreno Beach Drive from SR-60 Westbound Ramps to SR-60 Eastbound Ramps	F

Fulfillment/E-Commerce

Existing roadway segment operations, which were calculated for Study Area roadway segments using the analysis methodologies presented in Subsection 4.12.6, are summarized in Table 4.12-12, *Existing plus Project Roadway Segment Analysis – Fulfillment/E-Commerce*. As shown in Table 4.12-12, all roadway segments in the Study Area operate at acceptable LOS under existing conditions, with the exception of the following:

#	Roadway Segment	LOS
1	San Timoteo Canyon Road from Alessandro Road to Live Oak Canyon Road	D
2	San Timoteo Canyon Road from Live Oak Canyon Road to Redlands Boulevard	F
3	Redlands Boulevard south of San Timoteo Canyon Road	F



#	Roadway Segment	LOS
4	Redlands Boulevard north of Ironwood Avenue	F
5	Redlands Boulevard from Ironwood Avenue to SR-60 Westbound Ramps	F
6	Redlands Boulevard from SR-60 Westbound Ramps to SR-60 Eastbound Ramps	F
7	Redlands Boulevard from SR-60 Eastbound Ramps to Eucalyptus Avenue	E
8	Redlands Boulevard from Eucalyptus Avenue to Driveway 6	F
9	Redlands Boulevard from Driveway 6 to Driveway 7	F
10	Redlands Boulevard from Driveway 7 to Encelia Avenue	F
11	Redlands Boulevard from Encelia Avenue to Cottonwood Avenue	D
15	Moreno Beach Drive from SR-60 Westbound Ramps to SR-60 Eastbound Ramps	F
17	Moreno Beach Drive from Alessandro Boulevard to Cactus Avenue	F

4.12.5 APPLICABLE ENVIRONMENTAL PLANS, POLICIES, AND REGULATIONS

A. Senate Bill 743 and VMT-Based Analysis

Senate Bill 743, which was codified in Public Resources Code (PRC) Section 21099, required changes to the CEQA Guidelines regarding the analysis of transportation impacts. Pursuant to PRC Section 21099, the criteria for determining the significance of transportation impacts must “promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses.” To that end, in developing the criteria, the Office of Planning and Research (OPR) proposed, and the CNRA certified and adopted changes to the CEQA Guidelines in December 2018, which entailed changes to the thresholds of significance for the evaluation of impacts to transportation.

The updated CEQA Guidelines include the addition of CEQA Guidelines Section 15064.3, of which Subdivision b establishes criteria for evaluating a project’s transportation impacts based on project type and using automobile VMT as the metric. As identified in Section 15064.3(b)(4) of the CEQA Guidelines, a lead agency has the discretion to choose the most appropriate methodology to evaluate a project’s VMT. The City of Moreno adopted its VMT thresholds of significance and published its updated *Transportation Impact Analysis Preparation Guide for Vehicle Miles Traveled and Level of Service Assessment* on June 18, 2020. Pursuant to SB 743 and PRC Section 21099, the requirement for analyzing congestion impacts (i.e., LOS) for CEQA purposes was eliminated in December 2018. Therefore, an analysis of congestion impacts, including analysis of impacts related to the LOS of the circulation system is provided in this EIR only for informational purposes. The metric for determining a significant impact under CEQA is based on VMT.

B. SCAG Regional Transportation Plan/Sustainable Communities Strategy

The Southern California Association of Governments (SCAG) is a regional agency established pursuant to California Government Code Section 6500, also referred to as the Joint Powers Authority law. SCAG is designated as a Council of Governments (COG), a Regional Transportation Planning Agency (RTPA), and a Metropolitan Planning Organization (MPO). The Project site is within SCAG’s regional authority. On April 7, 2016, SCAG adopted the *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)* with goals to: 1) preserve the existing transportation system; 2) expand the regional transit system; 3) expand passenger rail; 4) improve highway and arterial capacity; 5) manage demands on the transportation system; 6) optimize the performance of the transportation system; 7) promote forms of active transportation;



8) strengthen the regional transportation network for goods movement; 9) leverage technology; 10) improve airport access; and 11) focus new growth around transit (SCAG, 2016, pp. 6-8).

On November 7, 2019, SCAG adopted the *2020-2045 RTP/SCS (Connect SoCal)* and its associated Program EIR for federal transportation conformity purposes only. *Connect SoCal* serves as an update to the *2016-2040 RTP/SCS* and focuses on the continued efforts of the previous RTP/SCS plans for an integrated approach in transportation and land uses strategies in development of the SCAG region through horizon year 2045. The goals for *Connect SoCal* include: 1) encourage regional economic prosperity and global competitiveness; 2) improve mobility, accessibility, reliability, and travel safety for people and goods; 3) enhance the preservation, security, and resilience of the regional transportation system; 4) increase person and goods movement and travel choices within the transportation system; 5) reduce greenhouse gas emissions and improve air quality; 6) support healthy and equitable communities; 7) adapt to a changing climate and support an integrated regional development pattern and transportation network; 8) leverage new transportation technologies and data-driven solutions that result in more efficient travel; 9) encourage development of diverse housing types in areas that are supported by multiple transportation options; and 10) promote conservation of natural and agricultural lands and restoration of habitats (SCAG, 2020, p. 9).

C. Transportation Uniform Mitigation Fee (TUMF) Program

In 2000, the Western Riverside Council of Governments (WRCOG) established the Transportation Uniform Mitigation Fee (TUMF) Program to mitigate the cumulative regional impacts of projected future growth and new development on the region’s arterial highway system. The TUMF Program applies a uniform mitigation fee to new development projects that is collected by each WRCOG member agency, including the City of Moreno Valley. The collected funds are pooled and used by WRCOG to fund transportation network improvements, including roads, bridges, interchanges, and railroad grade separations, identified by the public works departments of WRCOG member agencies and listed in the Regional System of Highways and Arterials (RHSA) (WRCOG, 2016, p. 1).

D. City of Moreno Valley Development Impact Fee (DIF) Program

The City of Moreno Valley created its Development Impact Fee (DIF) program to impose and collect fees from new residential, commercial, and industrial development for the purpose of funding local improvements necessary to accommodate City growth as identified in the City’s General Plan Circulation Element (Moreno Valley, 2018, Section 3.42.110). The identification of specific roadway and intersection improvement projects and the timing to use the DIF fees is established through periodic capital improvement programs which are overseen by the City’s Public Works Department.

E. City of Moreno Valley General Plan Circulation Element

The City of Moreno Valley’s General Plan Circulation Element is intended to guide the development of the City’s circulation system in a manner that is compatible with the City’s General Plan Land Use Element. To help meet traffic demands and achieve balanced growth, the City has adopted specific goals and policies, which serve as the basis for the Circulation Element. General Plan Objective 5.3 states: “Maintain Level of Service (LOS) “C” on roadway links, wherever possible, and LOS “D” in the vicinity of SR 60 and high employment centers” (Moreno Valley, 2006a).



F. City of Moreno Valley Bicycle Master Plan

The City of Moreno Valley's Bicycle Master Plan, adopted in January 2015, guides design and implementation of bicycle transportation infrastructure, programs and policies designed to make the City of Moreno Valley a more bicycle-friendly place and to encourage more residents to ride bicycles rather than drive (Moreno Valley, 2015, pp. iv-v).

4.12.6 TRANSPORTATION IMPACT ANALYSIS METHODOLOGY

The Project traffic impact analysis, as provided in *Technical Appendices L1 and L2*, and summarized in this Subsection, relies on the analysis methodologies described below.

A. Vehicle Miles Traveled (VMT) Evaluation Criteria and Methodology

In June 2020, the City of Moreno Valley adopted VMT based thresholds of significance. The City recommends using VMT per employee for home-based work trips for an industrial project. The City recommends the following thresholds (Translutions, 2020a, p. 57; Translutions, 2020b, pp. 63, 74):

- A project would have a significant VMT impact if, in the Existing plus Project scenario, per employee (for office and industrial projects) exceeds the average VMT for Moreno Valley.
- If a project is consistent with the regional *RTP/SCS*, then the cumulative impacts shall be considered less than significant subject to consideration of other substantial evidence. If it is not consistent with the *RTP/SCS*, then it would have a significant VMT impact if:
 - For office and industrial projects, the net VMT per employee exceeds the average VMT per employee for Moreno Valley in the *RTP/SCS* horizon-year

A Traffic Analysis Zone (TAZ) from the Riverside County Transportation Analysis Model (RivTAM) was used to estimate both the regional and Project VMT for the year 2020. RivTAM socioeconomic database for both base (2012) and future (2040) scenario were updated with the Project land use to derive 2020 conditions (Translutions, 2020a, pp. 57, 60; Translutions, 2020b, pp. 74, 76).

B. Level of Service (LOS) Methodology

The performance of roadway facilities is described using the term "level of service" (LOS). LOS is a qualitative description of traffic flow based on several factors such as speed, travel time, delay, and freedom to maneuver. LOS-based performance criteria include six (6) classifications ranging from LOS A, representing completely free-flow conditions, to LOS F, representing a breakdown in flow that results in stop-and-go conditions. Table 4.12-5, *Intersection LOS Thresholds*, summarize typical operational conditions at signalized and unsignalized intersections for each LOS classification, respectively. Table 4.12-6, *Roadway Segment LOS Thresholds*, summarize typical operational conditions at roadway segments for each LOS classification.

The CEQA Guidelines require that transportation impacts to the environment to be determined based on VMT; a LOS metric is no longer used as the basis for determining the significance of environmental impacts. Therefore, the analysis herein using LOS criteria focuses on consistency with the City of Moreno Valley's



General Plan General Plan Objective 5.3, which states: “Maintain Level of Service (LOS) “C” on roadway links, wherever possible, and LOS “D” in the vicinity of SR 60 and high employment centers.” Inconsistency with the Objective 5.3, however, does not constitute a transportation impact under CEQA.

Refer to *Technical Appendices L1 and L2* of this EIR for a discussion of methodology used to determine Project-related effects using LOS criteria for Opening Year (2024) analysis, General Plan Buildout (2040) analysis, and the roadway network assumed to be in place in those analysis years. Detailed volume development worksheets are included in Appendix C of *Technical Appendices L1 and L2*. In instances where a “fair-share” monetary contribution toward the construction of roadway improvements is recommended to correct a LOS deficiency, the Project’s fair-share contribution is determined by the equation presented below (Moreno Valley, 2020, p. 20). This calculation establishes a proportional nexus between the Project’s effect on the transportation system and the recommended monetary contribution.

$$\text{Project Fair Share \%} = \text{Project Trips} \div (\text{Project Trips} + \text{Future Development Trips})$$

Refer to Table L of *Technical Appendix L1* and Table J and Table L of *Technical Appendix L2* for more information on the methodology used to calculate fair share contribution toward future intersection and/or roadway improvements.

1. *Intersection Capacity LOS Analysis Methodology*

The intersection LOS analysis is based on the traffic volumes observed on weekdays between 7:00 AM and 9:00 AM (AM peak hour) and 4:00 PM and 6:00 PM (PM peak hour). These AM and PM peak hours were selected for analysis because these hours typically experience the most traffic during a 24-hour period.

At signalized intersections, peak hour performance is calculated using the methodology described in the Highway Capacity Manual (HCM). Intersection performance is based on the average control delay at each leg of the intersection. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. At signalized intersections, LOS is directly related to the average control delay per vehicle and is correlated to a LOS designation as described in Table 4.12-5. The traffic modeling and signal timing optimization software package Synchro (Version 10) is used to analyze signalized intersections capacity as specified in the HCM (Translutions, 2020a, p. 7; Translutions, 2020b, p. 8).

At unsignalized intersections, operations were evaluated using the methodology described in the HCM. At two-way or side-street stop-controlled intersections, LOS is calculated for each controlled movement and for the left turn movement from the major street, as well as for the intersection as a whole. For approaches comprising a single lane, the delay is computed as the average of all movements in that lane. For all-way stop controlled intersections, LOS is computed for the intersection as a whole. The LOS rating is based on the weighted average control delay expressed in seconds per vehicle, as shown in Table 4.12-5 (Translutions, 2020a, p. 7; Translutions, 2020b, p. 8).



2. Roadway Segment LOS Capacity Analysis Methodology

Roadway segment operations are evaluated using the applicable ADT roadway capacity values provided in the City of Moreno Valley's TIA guidelines. The roadway capacities utilized for the purposes of this analysis are considered "rule of thumb" estimates for planning purposes and are affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic) and pedestrian bicycle traffic (Translutions, 2020a, p. 15; Translutions, 2020b, p. 15).

C. Cumulative Projects

CEQA Guidelines Section 15130 requires that this EIR disclose the impact from the Project along with the incremental impacts from closely-related past, present, and reasonably foreseeable future projects (i.e., cumulative impact analysis). As previously described in EIR Section 4.0, *Environmental Analysis*, the Project's cumulative traffic impact analysis utilizes a summary of projections approach plus a list of projects approach in order to provide a conservative analysis of cumulative impacts. The location of each cumulative project can be found in Figure 11 of *Technical Appendices L1 and L2* (as well as on EIR Figure 4.0-1).

4.12.7 PROJECT VEHICLE TRIP GENERATION

Vehicle trip generation represents the amount of traffic that is associated with a development project. Determining traffic generation for a specific project is, therefore, based upon forecasting the amount of traffic that is expected to be both attracted to and produced by the specific land uses proposed by a given project.

Under the scenario where the Project would be operated as a warehouse distribution/logistics use, Project vehicle trips were calculated using the Institute of Transportation Engineers (ITE) Trip Generation Manual (10th Edition, 2017) trip generation rate and vehicle mix (i.e., percentage of passenger cars trips vs. truck trips) for warehouse uses (ITE Code 150) (Translutions, 2020a, p. 7). Under the scenario where the Project would be operated as an e-commerce/fulfillment use, Project vehicle trips were developed from surveys of e-commerce facilities located in the Inland Empire because e-commerce facilities typically generate higher passenger car trips than the warehouse uses from ITE (Translutions, 2020b, p. 8). The surveys are provided in Appendix B of *Technical Appendix L2*. For the purpose of this analysis, the trip generation was derived based on off-peak and peak season forecasts at the surveyed e-commerce facilities (ibid.). To provide a conservative analysis, the peak-season was considered to be two (2) months and the off-peak season was considered to be ten (10) months (ibid.).

The ITE Trip Generation Manual does not provide guidance on truck fleet mix (i.e., percentage of 2-axle, 3-axle, and 4-or-more axle trucks); therefore, assumptions regarding truck vehicle mix are based on recommendations provided by the South Coast Air Quality Management District (SCAQMD). (Translutions, 2020a, p. 7) Based on data from the ITE and the recommendations of the SCAQMD, operation of the Project as a warehouse distribution/logistics use is calculated to generate 2,321 actual daily vehicle trips, including 1,436 daily passenger car trips and 885 daily truck trips (Translutions, 2020a, Table A). Under the scenario where the Project is operated as an e-commerce/fulfillment use, the Project is calculated to generate 6,607 actual daily vehicle trips, including 5,750 daily passenger car trips and 857 daily truck trips (Translutions, 2020b, Table A).



As noted earlier in this Subsection, PCE trips are a better metric to reflect the real-world effect of larger vehicles (i.e., trucks) on the circulation system than are actual vehicle trips. Table 4.12-7, *Project Trip Generation Summary – Warehouse Distribution/Logistics*, and Table 4.12-8, *Project Trip Generation Summary – Fulfillment/E-Commerce*, summarize the Project’s trip generation with PCE factors applied. After applying the PCE factors, Project operation as a warehouse distribution/logistics use is calculated to generate 3,665 daily PCE trips, including 363 PCE trips in the AM peak hour and 404 PCE trips in the PM peak hour; and Project operation as an e-commerce/fulfillment use is calculated to generate 7,903 daily PCE trips, including 554 PCE trips in AM peak hour and 1,118 PCE trips in the PM peak hour. The Project’s PCE trips are utilized throughout the analysis in *Technical Appendices L1 and L2* and presented in this EIR Subsection to evaluate the Project’s effect to the transportation and circulation network unless specifically noted.

It bears noting that, in the event that 50,000 s.f. of the proposed building is used as cold storage (as noted in EIR Section 3.0, *Project Description*), the Project’s trip generation would vary slightly from the totals presented in the preceding paragraph: daily traffic associated with the Project would increase to 3,709 daily PCE trips for the warehouse distribution/logistics use (with no change in AM or PM peak hour PCE trips) and would decrease to 7,785 daily PCE trips for the e-commerce/fulfillment use (including a reduction to 554 PCE trips during the AM peak hour and 1,087 PCE trips during the PM) (Translutions, 2021a; Translutions 2021b). The potential inclusion of cold storage in the proposed building would not substantially change the trip generation – and would actually result in fewer trips under the potential e-commerce/fulfillment use – and would not change the results or conclusions of the traffic impact analyses presented in *Technical Appendices L1 and L2* (ibid.). Thus, the analysis presented in *Technical Appendices L1 and L2* and summarized in this EIR subsection is valid for the proposed warehouse distribution/logistics use and the conceptual e-commerce/fulfillment use, under both the scenarios with and without cold storage in the proposed building.

For more information on the trip generation methodology, refer to Subsection 2.1 of *Technical Appendices L1 and L2*.

4.12.8 PROJECT VEHICLE TRIP DISTRIBUTION

Trip distribution is the process of identifying the probable destinations, directions, or traffic routes that will be utilized by a development project’s traffic. The trip distribution for Project traffic was developed based on anticipated passenger car and truck travel patterns to-and-from the Project site. The traffic distribution pattern for Project truck trips under the scenario of a warehouse distribution/logistics use is illustrated on Figure 4.12-7, *Project Truck Distribution – Warehouse Distribution/Logistics* and the traffic distribution pattern for Project passenger car trips is illustrated on Figure 4.12-8, *Project Passenger Car Trip Distribution – Warehouse Distribution/Logistics*. The traffic distribution pattern for Project truck trips under the scenario of an e-commerce/fulfillment use is illustrated on Figure 4.12-9, *Project Truck Trip Distribution – Fulfillment/E-Commerce*, and the traffic distribution pattern for Project passenger car trips is illustrated on Figure 4.12-10, *Project Passenger Car Trip Distribution – Fulfillment/E-Commerce*.

Based on Project traffic generation and trip distribution patterns, Project operation as a warehouse distribution/logistics use or an e-commerce/fulfillment use would contribute the PCE traffic volumes at Study Area intersections shown on Figure 4.12-11, *Project Trip Assignment (PCE) – Warehouse*



Distribution/Logistics and Figure 4.12-12, *Project Trip Assignment (PCE) – Fulfillment/E-Commerce*, respectively.

4.12.9 BASIS FOR DETERMINING SIGNIFICANCE

The Project would result in a significant impact to the transportation system if the Project or any Project-related component would:

- a. *Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?*
- b. *Conflict or be inconsistent with CEQA Guidelines Section 15064.3 or conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?*
- c. *Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?*
- d. *Result in inadequate emergency access?*

The above-listed thresholds are referenced in the *City of Moreno Valley Rules and Procedures for the Implementation of the California Environmental Quality Act* and address the typical, adverse environmental effects related to transportation that could result from development projects.

4.12.10 IMPACT ANALYSIS

The analysis provided on the following pages addresses the potential transportation impacts could result from implementation of the proposed warehouse distribution/logistics facility and the conceptual fulfillment/e-commerce facility site plans described in EIR Section 3.0, *Project Description*. Except where specifically noted herein, implementation of the Project for either warehouse distribution/logistics or fulfillment/e-commerce uses would result in similar transportation impacts.

Threshold a: Would the Project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

SCAG 2016-2040 RTP/SCS

The fundamental goals of SCAG’s 2016-2040 RTP/SCS are to make the SCAG region a better place to live, work, and play for all residents regardless of race, ethnicity, or income class. Section 4.10, *Land Use and Planning*, of this EIR, addresses the Project’s consistency with the 2016-2040 RTP/SCS. As demonstrated through that analysis, implementation of the Project would be consistent with the goals and policies of SCAG’s regional planning program, including the following goals related to vehicular and non-vehicular circulation:

- Maximize mobility and accessibility for all people and goods in the region.
- Ensure travel safety and reliability for all people and goods in the region.
- Preserve and ensure a sustainable regional transportation system.



- Protect the environment and health for our residents by improving air quality and encouraging active transportation (e.g., bicycling and walking).
- Encourage land use and growth patterns that facilitate transit and active transportation.

City of Moreno Valley Bicycle Master Plan

The City of Moreno Valley’s Bicycle Master Plan, adopted in January 2015, guides design and implementation of bicycle transportation infrastructure. The Bicycle Master Plan calls for Class II bike lanes to be provide on Redlands Boulevard, which abuts the Project site to the east, and Eucalyptus Avenue, which abuts the Project site to the north. (Moreno Valley, 2015, pp. iv-v) The proposed Project is consistent with the Bicycle Master Plan by providing roadway frontage improvements that will accommodate the planned bicycle lanes, as described below. In addition, in accordance with the California Green Building Standards Code (CALGreen), bicycle parking will be provided on the Project site for use by employees and visitors to the Project site.

Development of the Project site would include improvements to the southern half of Eucalyptus Avenue, including a 38-foot-wide paved vehicular travel way, curb and gutter, an approximately 6.5-foot-wide sidewalk, and an approximately 5-foot-wide landscaped parkway within the public right-of-way. The proposed improvements to Eucalyptus Avenue are consistent with the street’s “Arterial” classification established by the Moreno Valley General Plan Circulation Plan, which provides room in the paved vehicular travel way for a Class II bicycle lane.

Redlands Boulevard would be improved along the Project site frontage to provide a 43-foot-wide paved vehicular travel way (including raised median), curb and gutter, an approximately 6.5-foot-wide sidewalk, and an approximately 5-foot-wide landscaped parkway within the public right-of-way on both sides of the street. The proposed improvements to Redlands Boulevard are consistent with the street’s “Divided Arterial – 4 lane” classification established by the Moreno Valley General Plan Circulation Plan, which provides room in the paved vehicular travel way for a Class II bicycle lane.

City of Moreno Valley General Plan Circulation Element

Provided herein is a discussion of the Project’s consistency with the objectives of the City of Moreno Valley’s General Plan Circulation Element.

Objective 5.1 - Create a safe, efficient and neighborhood-friendly street system.

As part of the Project’s development, roadway improvements would be constructed along the Project site’s frontages with Redlands Boulevard, Eucalyptus Avenue, and Encelia Avenue, which would improve transportation safety and efficiency by providing sidewalks and improved travel ways. In addition, the Project will entail the provision of an 11-foot-wide trail that conforms to City of Moreno Valley Standard Plan MVGF-610H-0 for a “Multi-Use Trail Adjacent to Street with Sidewalk” along the west side of Redlands Boulevard. The Project also would improve efficiency of the transportation system by providing two new bus stop turnouts. A bus stop turnout is proposed on the Project site on the west side of Redlands Boulevard, north of Encelia Avenue, and a second bus stop turnout is proposed on the Project site along the south side of Eucalyptus Avenue, near the northwest corner of the Project site. The precise location of the bus stop turnouts would be determined in consultation between the Project Applicant and the Riverside Transit Agency (RTA). Lastly,



an approximately 16.5-foot-wide combination trail and sidewalk would be installed as part of the Project along the western Project site boundary abutting the existing Quincy Channel.

Objective 5.2 - Implement access management policies.

This policy addresses residential street design and the incorporation of traffic calming design into local and collector streets to promote safe vehicle speeds. The proposed Project is not a residential project, but abuts Encelia Avenue to the south, which is a collector street. To ensure that the Project's truck traffic does not interfere with passenger car traffic using Encelia Avenue, the Project's driveways that connect to Encelia Avenue are proposed to be designated for passenger vehicle traffic only. No trucks would be able to use the Project's driveways that connect with Encelia Avenue due to the design of the driveways connecting to Encelia Avenue and due to the design of interior drive aisles, which require turns that are too narrow for tractors or tractor-trailers to make (but can be used safely by passenger vehicles and emergency response vehicles).

Objective 5.3 - Maintain Level of Service (LOS) "C" on roadway links, wherever possible, and LOS "D" in the vicinity of SR 60 and high employment centers.

Although SB 743 and the CEQA Guidelines stipulate that environmental impact conclusions for transportation must be based on VMT (discussed in threshold (b) below) and not LOS, the analysis herein provides information about Project-related effects on LOS, in the context of a General Plan consistency analysis. For that purpose, the specific criteria described below are utilized to evaluate the consistency with applicable City of Moreno Valley LOS performance standards, as well as LOS performance standards established by the City of Redlands, County of Riverside, and Caltrans.

City of Moreno Valley

- The Project would be directly inconsistent with LOS performance criteria if it would: 1) cause a signalized intersection to degrade from either LOS C or better or LOS D or better to LOS D/E/F or LOS E/F, respectively; or 2) increase the delay by 5.0 or more seconds at a signalized intersection that operates at an unacceptable level of service (i.e., LOS D or LOS E/F) without the Project.
- The Project would be directly inconsistent with LOS performance criteria if it would: 1) cause an unsignalized intersection to degrade from either LOS C or better or LOS D or better to LOS D/E/F or LOS E/F, respectively; or 2) increase the delay by 5.0 or more seconds at an unsignalized intersection that operates at an unacceptable level of service (i.e., LOS D or LOS E/F) without the Project and the intersection meets the peak hour traffic signal warrant after the addition of Project traffic.
- The Project would be directly inconsistent with LOS performance criteria if it would: 1) cause a roadway segment to degrade from either LOS C or better or LOS D or better to LOS D/E/F or LOS E/F, respectively; or 2) increase the volume to capacity ratio by 0.05 along any roadway segment that operates at unacceptable level of service (i.e., LOS D or LOS E/F) without the Project.

City of Redlands and County of Riverside Intersections and Roadway Segments

- The Project would be directly inconsistent with LOS performance criteria if it would cause an intersection to degrade from either LOS C or better or LOS D or better to LOS D/E/F or LOS E/F, respectively.



- The Project would make a considerable contribution to an LOS performance inconsistency if an intersection is calculated to operate at an unacceptable level of service (i.e., LOS D or LOS E/F) without the Project, and the Project contributes 50 or more peak hour trips to the affected intersection or increases the average delay at the affected intersection by more than 1 second.

Caltrans Facilities

- The Project would be directly inconsistent with Caltrans performance criteria if the Project would cause an intersection to degrade from LOS D or better to LOS E or F.
- The Project would make a considerable contribution to a performance criteria inconsistency if an intersection under the jurisdiction of Caltrans is calculated to operate at an unacceptable level of service (i.e., LOS E or F) without the Project, and the Project contributes 50 or more peak hour trips to the affected roadway facility.

The Project traffic analysis contained in *Technical Appendices L1 and L2* address each of the scenarios listed below:

- Short-term Construction Conditions
- Existing (2019) plus Project Conditions
- Opening Year (2024)
- General Plan Build-Out (2040)

The Short-term Construction conditions analysis evaluates the potential for the Project construction traffic to result in an adverse effect to the local roadway system's LOS performance criteria.

The Existing (2019) plus Project (E+P) analysis evaluates the potential for Project traffic to affect the roadway system under the theoretical scenario where the Project is operational under existing conditions. In the case of the proposed Project, the estimated time period between the commencement of the Project's traffic scoping process (2019) and Project "opening" for purposes of this analysis (2024) is five years. During this time period, traffic conditions are not static – other projects are being constructed, the transportation network is evolving, and traffic patterns are changing. Therefore, the E+P scenario is very unlikely to materialize in real-world conditions by the proposed Project is constructed and becomes operational. Regardless, the City of Moreno Valley's *Transportation Impact Analysis Preparation Guide for Vehicle Miles Traveled and Level of Service Assessment* (June 2020) requires this scenario to be studied to determine the Project's obligations for transportation system improvements.

The Opening Year (2024) analysis includes an evaluation of traffic conditions at the "opening" of the Project. Pursuant to the methodology established by the City of Moreno Valley Transportation Engineering Division in their *Transportation Impact Analysis Preparation Guide for Vehicle Miles Traveled and Level of Service Assessment*, "opening year" is defined as existing conditions plus five years. In the case of the Project's traffic analysis, 2019 represents the existing condition; therefore, the Opening Year is defined as 2024. The Opening Year analysis is utilized to determine the potential for Project traffic to cumulatively contribute to near-term



circulation system deficiencies upon consideration of existing traffic + ambient growth + Project traffic + traffic from cumulative development projects.

The General Plan Build-Out (2040) analysis is utilized to determine if planned improvements funded through local and regional transportation mitigation fee programs, such as the City of Moreno Valley DIF program or other approved funding mechanisms, can accommodate the Study Area’s expected long-term growth at the target LOS identified in the City’s General Plan Circulation Element.

Refer to *Technical Appendices L1 and L2* for a list of cumulative development projects considered in the analysis.

A. Analysis for Short-Term Construction

Construction of the proposed warehouse distribution/logistics site plan and the conceptual fulfillment/e-commerce site plan (see EIR Section 3.0, *Project Description*) would result in identical ground disturbances, utilize the same construction equipment fleet, and result in the same built improvements. Accordingly, the analysis below addresses potential construction-related effects from implementation of the Project for either warehouse distribution/logistics or e-commerce/fulfillment uses.

During Project construction, traffic to-and-from the subject property would be generated by activities such as construction worker trips, construction materials deliveries, and the use/delivery of heavy equipment. Construction worker vehicular traffic would be substantially less than the peak hour traffic volumes generated during Project operational activities – and is expected to be less than 50 peak hour trips – because construction activities typically begin and end outside of the peak hours. Regardless, because Project operational activities would substantially contribute to transportation deficiencies in the Study Area (refer to Item “B” below), construction workers commuting to/from the Project site – albeit mostly outside of peak hours and at much lower volumes than would occur during Project operation – also could cause or substantially contribute to transportation LOS deficiencies in the Study Area in the same locations as would operational traffic.

B. Analysis of Existing Plus Project Scenario

Warehouse Distribution/Logistics

Projected weekday peak hour intersection volumes in the Study Area under E+P traffic conditions are shown on Figure 4.12-13, *Existing plus Project Peak Hour Intersection Traffic Volumes – Warehouse Distribution/Logistics*. Table 4.12-9, *Existing plus Project Intersection Analysis – Warehouse Distribution/Logistics*, summarizes the peak hour LOS at Study Area intersections under E+P conditions. As shown in Table 4.12-9, Project-related traffic would exceed applicable LOS performance standards at the following intersection.

#	Intersection	AM Peak LOS	PM Peak LOS
2	Moreno Beach Drive/SR-60 Eastbound Ramps	F	F



Intersection #2 operates at deficient LOS under Existing (2020) conditions. Accordingly, the Project would not cause the LOS deficiencies at this intersection and the Project would not directly conflict with General Plan Objective 5.3. Notwithstanding, the Project would contribute more than 50 peak hour trips to Intersection #2 under E+P traffic conditions; therefore, the Project’s cumulative contribution to the LOS deficiency at Intersection #2 would be substantial. Improvements to Intersection #2 are included in the City’s Capital Improvement Program (CIP, which is partially funded by DIF); the design phase was completed in 2019 and construction is expected to be complete by December 2021 (Translutions, 2020a, p. 49). As a standard condition of approval, the Project Applicant’s required payment of Development Impact Fees (DIF) would address the Project’s effect on intersection performance.

Table 4.12-10, *Existing plus Project Roadway Segment Analysis – Warehouse Distribution/Logistics*, summarizes daily roadway segment operations in the Study Area under Existing plus Project traffic conditions. As shown on Table 4.12-10, Project-related traffic would exceed applicable LOS performance standards at Segment #2. The City’s CIP addresses the widening of Segment #2 (planned for fiscal year 2023/2024) and the City would collect DIF from the Project Applicant to address the Project’s effect on roadway segment performance (Translutions, 2020a, p. 49).

#	Roadway Segment	LOS
2	Redlands Boulevard from SR-60 Eastbound Ramps to Eucalyptus Avenue	F

☐ Fulfillment/E-Commerce

Projected weekday peak hour intersection volumes in the Study area under E+P traffic conditions are shown on Figure 4.12-14, *Existing plus Project Peak Hour Intersection Traffic Volumes – Fulfillment/E-Commerce*. Table 4.12-11, *Existing plus Project Intersection Analysis – Fulfillment/E-Commerce*, summarizes the peak hour LOS at intersections under E+P conditions. As shown in Table 4.12-11, Project-related traffic would exceed applicable LOS performance standards at the following Project Study Area intersections:

#	Intersection	AM Peak LOS	PM Peak LOS
10	Moreno Beach Drive/SR-60 Eastbound Ramps	F	C
16	Alessandro Road/San Timoteo Canyon Road	F	F
17	Live Oak Canyon Road/San Timoteo Canyon Road	F	F
18	Redlands Boulevard/San Timoteo Canyon Road	F	F
32	Redlands Boulevard/Alessandro Boulevard	E	F

As previously disclosed in Subsection 4.12.4, the above-listed intersections operate at deficient LOS under existing conditions. Accordingly, the Project would not cause the LOS deficiencies at these intersections and the Project would not directly conflict with General Plan Objective 5.3. Notwithstanding, the Project would contribute more than 50 peak hour trips to the intersections under E+P traffic conditions; therefore, the Project’s cumulative contribution to the LOS deficiencies would be substantial. Improvements to Intersection #10 are included in the City’s Capital Improvement Plan (CIP, which is partially funded by DIF); the design phase was completed in 2019 and construction is expected to be complete by December 2021 (Translutions, 2020b, pp. 49, 54). Additionally, the needed improvements to Intersection #32 (i.e., a traffic signal) are



covered by the City’s development impact fee program (Translutions, 2020b, p. 49). The Project Applicant’s required payment of DIF would address the Project’s effect on intersection performance at Intersections #10 and #32. The City of Moreno Valley would require the Project Applicant to pay fair share fees for improvements to Intersections #16, #17, and #18, which are not covered by an established fee program (Translutions, 2020b, p. 49).

Table 4.12-12, *Existing plus Project Roadway Segment Analysis – Fulfillment/E-Commerce*, summarizes daily roadway segment operations in the Study Area under E+P traffic conditions. As shown on Table 4.12-12, Project-related traffic would exceed applicable LOS performance standards at the following roadway segments.

#	Roadway Segment	LOS
1	San Timoteo Canyon Road from Alessandro Road to Live Oak Canyon Road	D
2	San Timoteo Canyon Road from Live Oak Canyon Road to Redlands Boulevard	F
3	Redlands Boulevard south of San Timoteo Canyon Road	F
6	Redlands Boulevard from SR-60 Westbound Ramps to SR-60 Eastbound Ramps	F
7	Redlands Boulevard from SR-60 Eastbound Ramps to Eucalyptus Avenue	E
11	Redlands Boulevard from Encelia Avenue to Cottonwood Avenue	E
12	Redlands Boulevard from Cottonwood Avenue to Alessandro Boulevard	D
15	Moreno Beach Drive from SR-60 Westbound Ramps to SR-60 Eastbound Ramps	F
16	Moreno Beach Drive from SR-60 Eastbound Ramps to Eucalyptus Avenue	C

The City would collect DIF for improvements to Segments #6, #7, #11, #12, #15, and #16 to address the Project’s effect on roadway segment performance (Translutions, 2020b, pp. 49, 54). The City of Moreno Valley would require the Project Applicant to pay fair share fees for improvements to the other roadway segments (Intersections #1, #2, and #3), which are not covered by an established fee program (ibid.).

C. Analysis of Opening Year (2024) Scenario

□ Warehouse Distribution/Logistics

Peak hour intersection volumes for Opening Year (2024) traffic conditions are shown on Figure 4.12-15, *Opening Year (2024) Peak Hour Intersection Traffic Volumes – Warehouse Distribution/Logistics*. As summarized in Table 4.12-13, *Opening Year (2024) Intersection Analysis – Warehouse Distribution/Logistics*, Project-related traffic would exceed applicable LOS performance standards at the following intersections during one or both peak hours:

#	Intersection	AM Peak LOS	PM Peak LOS
2	Moreno Beach Drive/SR-60 Eastbound Ramps	F	F
10	Redlands Boulevard/SR-60 Westbound Ramps	E	E

Improvements to Intersection #2 is included in the City’s CIP (which is partially funded by DIF); the design phase was completed in 2019 and construction is expected to be complete by December 2021 (Translutions,



2020a, p. 49). The Project Applicant’s required payment of DIF would address the Project’s effect on Intersection #2’s performance. Intersection #10 is planned for future improvement; however, improvements may not be in place by the Opening Year (2024) scenario. In the event the Intersection #10 is not built to its ultimate configuration by 2024 and if operations at this Intersection do not meet the City’s LOS performance thresholds (as projected), the City will address the performance deficiency via interim improvements (i.e., restriping the intersection to provide a northbound shared through/right turn lane) (ibid.).

Table 4.12-14, *Opening Year (2024) Roadway Segment Analysis – Warehouse Distribution/Logistics*, summarizes daily roadway segment operations in the Study Area under Opening Year traffic conditions. As shown on Table 4.12-14, Project-related traffic would exceed applicable LOS performance standards at the following roadway segments.

#	Roadway Segment	LOS
1	Redlands Boulevard from SR-60 Westbound Ramps to SR-60 Eastbound Ramps	F
2	Redlands Boulevard from SR-60 Eastbound Ramps to Eucalyptus Avenue	E
6	Moreno Beach Drive from SR-60 Westbound Ramps to SR-60 Eastbound Ramps	F

Widening and related improvements to Segment #6 are included in the City’s CIP (which is partially funded by DIF); the design phase was completed in 2019 and construction is expected to be complete by December 2021 (Translutions, 2020a, p. 49). Additionally, widening and related improvements to Segments #1 and #2 are included in the City’s CIP (planned for fiscal year 2023/2024) (ibid.). The Project Applicant’s requirement payment of DIF would address the Project’s effect on roadway performance at Segments #1, #2, and #6.

□ Fulfillment/E-Commerce

Project peak hour intersection volumes for Opening Year (2024) traffic conditions are shown on Figure 4.12-16, *Opening Year (2024) Peak Hour Intersection Traffic Volumes – Fulfillment/E-Commerce*. Table 4.12-15, *Opening Year (2024) Intersection Analysis – Fulfillment/E-Commerce*, summarizes the peak hour LOS at intersections under Opening Year conditions. As shown in Table 4.12-15, Project-related traffic would exceed applicable LOS performance standards at the following Project Study Area intersections:

#	Intersection	AM Peak LOS	PM Peak LOS
10	Moreno Beach Drive/SR-60 Eastbound Ramps	F	F
11	Moreno Beach Drive/Eucalyptus	D	E
13	Moreno Beach Drive/Alessandro Boulevard	E	F
16	Alessandro Road/San Timoteo Canyon Road	F	F
17	Live Oak Canyon Road/San Timoteo Canyon Road	F	F
18	Redlands Boulevard/San Timoteo Canyon Road	F	F
25	Redlands Boulevard/SR-60 Westbound Ramps	-	E
32	Redlands Boulevard/Alessandro Boulevard	F	F
34	WLC Parkway/Eucalyptus Avenue	F	F



Improvements to Intersection #10 are addressed via the City’s CIP (which is partially funded by DIF); the design phase was completed in 2019 and construction is expected to be complete by December 2021 (Translutions, 2020b, p. 54). The improvements needed to correct the LOS deficiencies at Intersections #13 and #32 are included in the City’s DIF program. The Project Applicant’s required payment of DIF fees would address the Project’s effect on the performance of Intersections #10, 13, and 32 (Translutions, 2020b, pp. 54, 56). Intersection #25 is planned for future improvement; however, improvements may not be in place by the Opening Year (2024) scenario. In the event the Intersection #25 is not built to its ultimate configuration by 2024 and if operations at this Intersection do not meet the City’s LOS performance thresholds (as projected), the City will address the performance deficiency via interim improvements (i.e., restriping the intersection to provide a northbound shared through/right turn lane) (Translutions, 2020b, p. 56). The City of Moreno Valley would require the Project Applicant to pay fair share fees for improvements to all of the other intersections, which are not covered by a fee program, with the exception of Intersection #34, which would be improved by the World Logistics Center project (Translutions, 2020b, pp. 54, 56).

Regarding roadway segments, Table 4.12-16, *Opening Year (2024) Roadway Segment Analysis – Fulfillment/E-Commerce*, summarizes daily roadway segment operations in the Study Area under Opening Year traffic conditions. As shown on Table 4.12-16, Project-related traffic would exceed applicable LOS performance criteria at the following roadway segments:

#	Roadway Segment	LOS
1	San Timoteo Canyon Road from Alessandro Road to Live Oak Canyon Road	F
2	San Timoteo Canyon Road from Live Oak Canyon Road to Redlands Boulevard	F
3	Redlands Boulevard south of San Timoteo Canyon Road	F
6	Redlands Boulevard from SR-60 Westbound Ramps to SR-60 Eastbound Ramps	F
7	Redlands Boulevard from SR-60 Eastbound Ramps to Eucalyptus Avenue	F
11	Redlands Boulevard from Encelia Avenue to Cottonwood Avenue	F
12	Redlands Boulevard from Cottonwood Avenue to Alessandro Boulevard	F
15	Moreno Beach Drive from SR-60 Westbound Ramps to SR-60 Eastbound Ramps	F
16	Moreno Beach Drive from SR-60 Eastbound Ramps to Eucalyptus Avenue	E

Widening and related improvements to Segment #15 are included in the City’s CIP (which is partially funded by DIF); the design phase was completed in 2019 and construction is expected to be complete by December 2021 (Translutions, 2020b, p. 59). Additionally, widening and related improvements to Segments #6 and #7 are included in the City’s CIP (planned for fiscal year 2023/2024) (Translutions, 2020b, p. 56). The improvements needed to correct the LOS deficiencies along Segments #11, #12, and #16 are included in the City’s DIF program (Translutions, 2020b, pp. 56, 59). Thus, the Project Applicant’s required payment of DIF would address the Project’s effect on Segments #11, #12, #15, and #16. The City of Moreno Valley would require the Project Applicant to pay fair share fees for improvements to the other roadway segments (i.e., Segments #1, #2, and #3), which are not covered by an established fee program (Translutions, 2020b, pp. 54, 56).



D. Analysis of General Plan Build-Out (2040) Scenario

Warehouse Distribution/Logistics

Project peak hour intersection volumes for General Plan Build-Out (2040) traffic conditions are shown on Figure 4.12-17, *General Plan Build-Out (2040) Peak Hour Intersection Traffic Volumes – Warehouse Distribution/Logistics*.

As summarized in Table 4.12-17, *General Plan Build-Out (2040) Intersection Analysis – Warehouse Distribution/Logistics*, Project-related traffic would not exceed applicable performance thresholds and all Study Area intersections would operate at acceptable LOS.

Table 4.12-18, *General Plan Build-Out (2040) Roadway Segment Analysis – Warehouse Distribution/Logistics*, summarizes daily roadway segment operations in the Study Area under General Plan Build-Out traffic conditions. As shown on Table 4.12-18, Project-related traffic would not exceed applicable performance thresholds and all Study Area roadway segments would operate at acceptable LOS.

Fulfillment/E-Commerce

Project peak hour intersection volumes for General Plan Build-Out (2040) traffic conditions are shown on Figure 4.12-18, *General Plan Build-Out (2040) Peak Hour Intersection Traffic Volumes – Fulfillment/E-Commerce*. Table 4.12-19, *General Plan Build-Out (2040) Intersection Analysis – Fulfillment/E-Commerce*, summarizes the peak hour LOS at intersections under General Plan Build-Out conditions. As shown in Table 4.12-19, Project-related traffic would exceed applicable LOS performance standards at the following Project Study Area intersections:

#	Intersection	AM Peak LOS	PM Peak LOS
11	Moreno Beach Drive/Eucalyptus	F	F
16	Alessandro Road/San Timoteo Canyon Road	F	F
17	Live Oak Canyon Road/San Timoteo Canyon Road	F	F
18	Redlands Boulevard/San Timoteo Canyon Road	F	F
27	Redlands Boulevard/Eucalyptus Avenue	C	E

Improvements to Intersection #27 are included in the City’s DIF program and the Project Applicant’s required payment of DIF would address the Project’s effect on intersection performance (Translutions, 2020b, p. 59). The City of Moreno Valley would require the Project Applicant to pay fair share fees for improvements to all of the other intersections, which are not covered by a fee program (ibid.).

In regard to roadway segments, Table 4.12-20, *General Plan Build-Out (2040) Roadway Segment Analysis – Fulfillment/E-Commerce*, summarizes daily roadway segment operations in the Study Area under General Plan Build-Out traffic conditions. As shown on Table 4.12-20, Project-related traffic would exceed applicable LOS performance standards at the following roadway segments:



#	Roadway Segment	LOS
1	San Timoteo Canyon Road from Alessandro Road to Live Oak Canyon Road	F
2	San Timoteo Canyon Road from Live Oak Canyon Road to Redlands Boulevard	F
3	Redlands Boulevard south of San Timoteo Canyon Road	F

The City of Moreno Valley would require the Project Applicant to pay fair share fees for improvements to the above-listed roadway segments, which are not covered by an established fee program (Translutions, 2020b, pp. 59, 63).

Objective 5.4 - Maximize efficiency of the regional circulation system through close coordination with state and regional agencies and implementation of regional transportation policies.

This objective would be implemented by cities and counties within the region as part of the overall planning and maintenance of the regional circulation system. The Project would not interfere in any way with the City’s coordination with State and regional agencies. In addition, the Project would be consistent with regional transportation policies, including SCAG’s *2016-2040 RTP/SCS* and *Connect SoCal*. Refer to Section 4.10, *Land Use & Planning* in this EIR for the Project’s SCAG consistency analysis.

Objective 5.5 - Maximize efficiency of the local circulation system by using appropriate policies and standards to design, locate and size roadways.

The Project’s roadway frontage improvements to Eucalyptus Avenue, Redlands Boulevard, and Encelia Avenue and non-vehicular circulation improvements to Eucalyptus Avenue, Redlands Boulevard, and the western Project site boundary would be designed in consistency with the City’s General Plan Circulation Plan and/or the RTA for bus stop turnouts. Refer to Subsection 3.4, *Infrastructure Improvements*, in this EIR for a detailed description of proposed improvements for each roadway.

Objective 5.6 - Support development of a ground access system to March Inland Port in accordance with its development plan as a major cargo airport.

This objective is not applicable to the proposed Project, which is located approximately 5.7 miles northwest of the March Inland Port.

Objective 5.7 - Design roads to meet the needs of the residents of the community without detracting from the “rural” atmosphere in designated portions of Moreno Valley. (Designated “rural” areas include those encompassed by the Residential Agriculture 2, Residential 1, Rural Residential and Hillside Residential zoning districts. “Urban” areas encompass all other zoning districts.)

The Project involves a proposed a Change of Zone to amend the zoning designation of the site from “Residential Agriculture 2 (RA2) District” with “Primary Animal Keeping Overlay Zone (PAKO)” to “Light Industrial (LI) District.” Therefore, the Project site would no longer be located within a designated “rural” area and Project roadway improvements would not detract from the “rural” atmosphere in other designated portions of the City.



Objective 5.8 - Encourage development of an efficient public transportation system for the entire community.

No transit lines serve the Project site or the immediate surrounding area. However, a bus stop turnout is proposed on the Project site on the west side of Redlands Boulevard, north of Encelia Avenue, and a bus stop turnout is proposed on the Project site along the south side of Eucalyptus Avenue, near the northwest corner of the Project site. Accordingly, implementation of the Project would encourage the development of an efficient public transportation system.

Objective 5.9 - Support and encourage development of safe, efficient and aesthetic pedestrian facilities.

The Project is not expected to attract large volumes of pedestrian or bicycle traffic. There is an existing sidewalk on the north side of Eucalyptus Avenue, on the opposite side of the Project site's frontage, and an existing sidewalk on the south side of Encelia Avenue, on the opposite side of the Project site's frontage (Translutions, 2020a, Figure 15; Translutions, 2020b, Figure 15). In addition, the Project Applicant is proposing an approximately 11-foot-wide decomposed granite trail abutting the west side of the Redlands Boulevard public right-of-way (which would conform to City of Moreno Valley Standard Plan MVGF-610H-0 for a "Multi-Use Trail Adjacent to Street with Sidewalk"), and an approximately 16.5-foot-wide combination trail and sidewalk along the western Project site boundary abutting the existing Quincy Channel, which is consistent with the City's designated trails under the City's General Plan (Translutions, 2020a, Figure 14; Translutions, 2020b, Figure 14).

Objective 5.10 - Encourage bicycling as an alternative to single occupant vehicle travel for the purpose of reducing fuel consumption, traffic congestion, and air pollution. The Moreno Bikeway Plan is shown in Figure 9-4.

The City of Moreno Valley Bicycle Master Plan (2015) recommends Class II bicycle routes along the Project site's frontage with Eucalyptus Avenue and Redlands Boulevard; however, there are no existing or proposed bicycle facilities on or abutting the Project site (Translutions, 2020a, Figure 23; Translutions, 2020b, Figure 23). Accordingly, the Project would not conflict with any existing City-designated bikeways. Furthermore, the Project's driveways would be stop-sign controlled and sight distance at each Project driveway would be reviewed by the City of Moreno Valley prior to the issuance of building permits to ensure that sight distance meets applicable City standards and provides for safe bicycle and pedestrian circulation. In addition, in accordance with the California Green Building Standards Code (CALGreen), bicycle parking will be provided on the Project site for use by employees and visitors to the Project site.

Development of the Project site would include improvements to the southern half of Eucalyptus Avenue, including a 38-foot-wide paved vehicular travel way, which provides room in the paved vehicular travel way for a Class II bicycle lane. The western half of Redlands Boulevard would be improved along the Project site frontage to provide a 43-foot-wide paved vehicular travel way, which also provides room in the paved vehicular travel way for a Class II bicycle lane.



Objective 5.11 - Eliminate obstructions that impede safe movement of vehicles, bicyclists, and pedestrians.

As previously mentioned in the discussion regarding consistency with Objective 5.1, above, Project roadway improvements would be constructed along the Project site’s frontages with Redlands Boulevard, Eucalyptus Avenue, and Encelia Avenue, which would improve transportation safety by providing sidewalks and improved travel ways. In addition, the Project Applicant would install two trails to provide a safe walking space for pedestrians – one trail along the west side of Redlands Boulevard and one combination trail and sidewalk along the western Project site boundary abutting the existing Quincy Channel. Lastly, all proposed driveways would be stop controlled to ensure safety for vehicles and pedestrians.

Objective 5.12 - Promote efficient circulation planning for all school sites that will maximize pedestrian safety, and minimize traffic congestion and neighborhood impacts.

The nearest school to the Project site (Calvary Chapel Christian School) is located approximately 1.0-mile northwest of the Project site on the opposite (north) side of SR-60; therefore, roadways surrounding the Project site (i.e., Eucalyptus Avenue, Redlands Boulevard, and Encelia Avenue) are too far away to be utilized for schools. As such, the Project would not conflict with circulation planning associated with school sites. Regardless, sidewalk and/or trails would be installed along all Project site frontages with public streets. In addition, a pedestrian trail would be installed along the western Project site boundary to facilitate safe pedestrian circulation. In addition, as previously mentioned in the discussion of Objective 5.3, above, the Project Applicant would be obligated by pay TUMF fees, DIF fees, and fair share improvement fees that the City would use to ensure the implementation of roadway improvements in the area in order to minimize traffic congestion. Lastly, as mentioned in the discussion of Objective 5.2, to ensure that Project truck traffic does not interfere with passenger vehicle traffic from the residential community to the south of Encelia Avenue, the Project’s driveways that connect to Encelia Avenue are proposed to be designated for passenger vehicle traffic only. No trucks would be able to use the Project’s driveways that connect with Encelia Avenue, which would minimize neighborhood impacts due to Project traffic. Further, the Project Applicant is proposing to improve the segment of Encelia Avenue from the southwest Project site boundary to Redlands Boulevard with rubberized asphalt to reduce vehicular noise, as discussed in EIR Subsection 4.11, *Noise*.

Threshold b: Would the Project conflict or be inconsistent with CEQA Guidelines Section 15064.3 or conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

As previously discussed, SB 743, approved in 2013, was intended to change the way transportation impacts are determined according to CEQA. Updates to the State CEQA Guidelines that were approved in December 2018 included the addition of CEQA Guidelines Section 15064.3, of which Subdivision “b” establishes criteria for evaluating a project’s transportation impacts based on project type and using automobile VMT as the metric. As a component of OPR’s revisions to the CEQA Guidelines, lead agencies were required to adopt VMT thresholds of significance by July 1, 2020. The City of Moreno Valley adopted its *Transportation Impact Analysis Preparation Guide for Vehicle Miles Traveled and Level of Service Assessment* in June 2020, which is used in this analysis to determine the significance of Project-related VMT.



A. Warehouse Distribution/Logistics

Table 4.12-21, *Project VMT Analysis – Warehouse Distribution/Logistics*, summarizes the Project’s VMT per employee under model baseline (year 2012), year 2020, and year 2040 conditions without consideration of any design features associated with the Project. As shown in Table 4.12-21, the Project’s VMT per employee would exceed the City’s VMT per employee threshold under year 2012, year 2020, and year 2040 conditions when Project design features are not considered. With consideration of just two of the Project’s design features that reduce vehicular transportation – the sidewalks the Project would provide along the site’s Eucalyptus Avenue, Redlands Boulevard, and Encelia Avenue frontages and the trails the Project would provide along the site’s western boundary (abutting the Quincy Channel) and eastern boundary (abutting Redlands Boulevard), both of which would facilitate pedestrian and bicycle travel to the site – the Project’s VMT would be reduced by approximately two percent (2%) and would fall below the City’s significance threshold (Translutions, 2020a, pp. 60, 63, 64). Therefore, based on the City’s VMT significance guidelines, the Project would have a less-than-significant VMT impact under the scenario where the Project is operated as a warehouse distribution/logistics use.

B. Fulfillment/E-Commerce

Table 4.12-22, *Project VMT Analysis– Fulfillment/E-Commerce*, summarizes the Project’s VMT per employee under model baseline (year 2012), year 2020, and year 2040 conditions without consideration of any design features associated with the Project. As shown in Table 4.12-22, the Project’s VMT per employee would exceed the City’s VMT per employee threshold under year 2012, year 2020, and year 2040 conditions when Project design features are not considered. With consideration of the Project’s design features that minimize vehicular travel, including: 1) sidewalks along the Project site frontages with Eucalyptus Avenue, Redlands Boulevard, and Encelia Avenue and trails along the site’s western boundary (abutting the Quincy Channel) and eastern boundary (abutting Redlands Boulevard) – both of which would facilitate pedestrian and bicycle travel to the site; 2) the Project’s geographic location as an employment use in proximity to existing residential land uses – which would reduce Project-related VMT from employee commutes; and 3) an employee trip reduction program – which is required pursuant to MM 4.2-9 and would reduce Project-related VMT from employee commutes, the Project’s VMT would be reduced by approximately 6.1% and would fall below the City’s significance threshold (Translutions, 2020b, pp. 74, 76, 78, 79). Therefore, based on the City’s VMT significance guidelines, the Project would have a less-than-significant VMT impact under the scenario where the Project is operated as an e-commerce/fulfillment use.

In summary, because the Project would not exceed the City’s VMT per employee under year 2012, year 2020, and year 2040 as either a warehouse distribution/logistics use or an e-commerce/fulfillment use, the Project is determined to be consistent with CEQA Guidelines Section 15064.3. As such, a less-than-significant impact would occur for which mitigation is not required.

Threshold c: *Would the Project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?*

The type of traffic generated by the Project (i.e., passenger cars and trucks) would be compatible with the type of existing traffic on Project Study Area roadways, as the surrounding area to the north and east are either developed or planned to be developed with industrial land uses. In addition, all proposed improvements within



the public right-of-way would be installed in conformance with City design standards. The City of Moreno Valley Public Works Department reviewed the Project’s application materials and determined that no hazardous transportation design features would be introduced by the Project. Accordingly, the proposed Project would not create or substantially increase safety hazards due to a design feature or incompatible use. Impacts would be less than significant.

Threshold d: Would the Project result in inadequate emergency access?

The City of Moreno Valley reviewed the Project’s design and confirmed that the Project would provide adequate access to-and-from the Project site for emergency vehicles and also that development of the Project would not interfere with the circulation of emergency vehicles along public streets that abut the site. The City also will require the Project Applicant to provide adequate paved access to-and-from the site as a condition of Project approval. Lastly, the City will review all future Project construction drawings to ensure that adequate emergency access is maintained along abutting public streets during construction activities. Based on the proposed Project design and with required adherence to City requirements for emergency vehicle access, no impact would occur.

4.12.11 CUMULATIVE IMPACT ANALYSIS

The analysis under Threshold “a” discloses the Project’s potential to conflict with General Plan objectives and policies related to the transportation network, including LOS standards, on a cumulative basis. As disclosed under the analysis of Threshold “a,” the Project operating as either a warehouse distribution/logistics use or an e-commerce/fulfillment use, would make substantial, cumulative contributions to LOS deficiencies that conflict with applicable General Plan performance objectives and policies for the local roadway network at several Project Study Area intersections under E+P, Opening Year, and General Plan Build-Out traffic conditions.

The analysis under Threshold “b” discloses the Project’s less-than-significant direct VMT impact as both a warehouse distribution/logistics and a fulfillment/e-commerce use. Under the City’s VMT significance guidelines, Project-related VMT is also considered less than significant on a cumulative basis (Translutions, 2020a, p. 60; Translutions, 2020b, p. 76) Furthermore, the Project would be consistent with SCAG’s 2016 RTP/SCS and *Connect SoCal* for long-term VMT and GHG reduction goals. Accordingly, the Project would not contribute a cumulatively-considerable VMT impact.

The Project would not contribute to a significant cumulative impact under the topics discussed under Thresholds “c” and “d” because the Project would not cause or exacerbate existing transportation design safety concerns or adversely affect emergency access.

4.12.12 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold a: Less-than-Significant Impact. The Project would not conflict with a program, plan, ordinance or policy addressing the circulation system such that the Project would result in a significant impact on the environment. Although the Project would contribute to traffic congestion and hinder compliance with General Plan Circulation Element Policy 5.3 related to LOS criteria, SB 743 and the CEQA Guidelines stipulate that LOS is not to be used as a criteria for determining significant effects on the environment.



Threshold b: Less-than-Significant Impact. The Project would not result in a significant VMT impact under the scenarios where the Project is operated as either a warehouse distribution/logistics use or an e-commerce/fulfillment use when all Project design features that would promote non-vehicular transportation and would reduce VMT from employee commutes are considered.

Threshold c: Less-than-Significant Impact. No significant transportation safety hazards would be introduced as a result of the proposed Project.

Threshold d: No Impact. Adequate emergency access would be provided to the Project site during construction and long-term operation. The Project would not result in inadequate emergency access to the site or surrounding properties.



Table 4.12-1 Study Area Intersection Locations – Warehouse Distribution/Logistics

ID	Intersection Location	Jurisdiction
1	Moreno Beach Drive and SR-60 Westbound Ramps	Caltrans
2	Moreno Beach Drive and SR-60 Eastbound Ramps	Caltrans
3	Moreno Beach Drive and Eucalyptus Avenue	City of Moreno Valley
4	Auto Mall Drive and Eucalyptus Avenue	City of Moreno Valley
5	Driveway 1 and Eucalyptus Avenue	City of Moreno Valley
6	Driveway 2-Essen Lane and Encelia Avenue	City of Moreno Valley
7	Driveway 3 and Encelia Avenue	City of Moreno Valley
8	Driveway 4-Shubert Street and Encelia Avenue	City of Moreno Valley
9	Driveway 5 and Eucalyptus Avenue	City of Moreno Valley
10	Redlands Boulevard and SR-60 Westbound Ramps	Caltrans
11	Redlands Boulevard and SR-60 Eastbound Ramps	Caltrans
12	Redlands Boulevard and Eucalyptus Avenue	City of Moreno Valley
13	Redlands Boulevard and Driveway 6	City of Moreno Valley
14	Redlands Boulevard and Driveway 7	City of Moreno Valley
15	Redlands Boulevard and Encelia Avenue	City of Moreno Valley

Source: (Translutions, 2020a, p. 1)



Table 4.12-2 Study Area Intersection Locations – Fulfillment/E-Commerce

ID	Intersection Location	Jurisdiction
1	Kitching Street and Iris Avenue	City of Moreno Valley
2	Lasselle Street and Alessandro Boulevard	City of Moreno Valley
3	Lasselle Street and Iris Avenue	City of Moreno Valley
4	Nason Street and Eucalyptus Avenue	City of Moreno Valley
5	Nason Street and Alessandro Boulevard	City of Moreno Valley
6	Nason Street and Iris Avenue	City of Moreno Valley
7	Fir Avenue and Eucalyptus Avenue	City of Moreno Valley
8	Oliver Street and Iris Avenue Moreno Valley	City of Moreno Valley
9	Moreno Beach Drive and SR-60 Westbound Ramps	Caltrans
10	Moreno Beach Drive and SR-60 Eastbound Ramps	Caltrans
11	Moreno Beach Drive and Eucalyptus Avenue	City of Moreno Valley
12	Auto Mall Drive and Eucalyptus Avenue	City of Moreno Valley
13	Moreno Beach Drive and Alessandro Boulevard	City of Moreno Valley
14	Moreno Beach Boulevard and Cactus Avenue	City of Moreno Valley
15	Moreno Beach Drive and John F. Kennedy Drive	City of Moreno Valley
16	Alessandro Boulevard and San Timoteo Canyon Road	City of Redlands
17	Live Oak Canyon Road and San Timoteo Canyon Road	City of Riverside
18	Redlands Boulevard and San Timoteo Canyon Road	City of Riverside
19	Driveway 1 and Eucalyptus Avenue	City of Moreno Valley
20	Driveway 2-Essen Lane and Encelia Avenue	City of Moreno Valley
21	Driveway 3 and Encelia Avenue	City of Moreno Valley
22	Driveway 4-Shubert Street and Encelia Avenue	City of Moreno Valley
23	Driveway 5 and Eucalyptus Avenue	City of Moreno Valley
24	Redland Boulevard and Ironwood Avenue	City of Moreno Valley
25	Redlands Boulevard and SR-60 Westbound Ramps	Caltrans
26	Redlands Boulevard and SR-60 Eastbound Ramps	Caltrans
27	Redlands Boulevard and Eucalyptus Avenue	City of Moreno Valley
28	Redlands Boulevard and Driveway 6	City of Moreno Valley
29	Redlands Boulevard and Driveway 7	City of Moreno Valley
30	Redlands Boulevard and Encelia Avenue	City of Moreno Valley
31	Redlands Boulevard and Cottonwood Avenue	City of Moreno Valley
32	Redlands Boulevard and Alessandro Boulevard	City of Moreno Valley
33	Redlands Boulevard-John F. Kennedy Drive and Cactus Avenue	City of Moreno Valley
34	World Logistics Parkway and Eucalyptus Avenue	City of Moreno Valley

Source: (Translutions, 2020b, pp. 1, 3)



Table 4.12-3 Study Area Roadway Segments – Warehouse Distribution/Logistics

ID	Roadway Segment	Jurisdiction
1	Redlands Boulevard from SR-60 Westbound Ramps to SR-60 Eastbound Ramps	Caltrans
2	Redlands Boulevard from SR-60 Eastbound Ramps to Eucalyptus Avenue	City of Moreno Valley
3	Redlands Boulevard from Eucalyptus Avenue to Driveway 6	City of Moreno Valley
4	Redlands Boulevard from Driveway 6 to Driveway 7	City of Moreno Valley
5	Redlands Boulevard from Driveway 7 to Encelia Avenue	City of Moreno Valley
6	Moreno Beach Drive from SR-60 Westbound Ramps to SR-60 Eastbound Ramps	Caltrans
7	Moreno Beach Drive from SR-60 Eastbound Ramps to Eucalyptus Avenue	City of Moreno Valley
8	Eucalyptus Avenue from Moreno Beach Drive to Auto Mall Drive	City of Moreno Valley
9	Eucalyptus Avenue from Auto Mall Drive to Driveway 1	City of Moreno Valley
10	Eucalyptus Avenue from Driveway 1 to Aldi Place	City of Moreno Valley
11	Eucalyptus Avenue Aldi Place to Driveway 5	City of Moreno Valley
12	Eucalyptus Avenue from Driveway 5 to Redlands Boulevard	City of Moreno Valley
13	Encelia Avenue from Essen Lane to Mozart Way	City of Moreno Valley
14	Encelia Avenue from Mozart Way to Shubert Street	City of Moreno Valley
15	Encelia Avenue Shubert Street to Redlands Boulevard	City of Moreno Valley

Source: (Translutions, 2020a, pp. 1, 3)



Table 4.12-4 Study Area Roadway Segments – Fulfillment/E-Commerce

ID	Roadway Segment	Jurisdiction
1	San Timoteo Canyon Road from Alessandro Road to Live Oak Canyon Road	City of Redlands
2	San Timoteo Canyon Road from Live Oak Canyon Road to Redlands Boulevard	County of Riverside
3	Redlands Boulevard south of San Timoteo Canyon Road	County of Riverside
4	Redlands Boulevard north of Ironwood Avenue	City of Moreno Valley
5	Redlands Boulevard from Ironwood Avenue to SR-60 Westbound Ramps	City of Moreno Valley
6	Redlands Boulevard from SR-60 Westbound Ramps to SR-60 Eastbound Ramps	Caltrans
7	Redlands Boulevard from SR-60 Eastbound Ramps to Eucalyptus Avenue	City of Moreno Valley
8	Redlands Boulevard from Eucalyptus Avenue to Driveway 6	City of Moreno Valley
9	Redlands Boulevard from Driveway 6 to Driveway 7	City of Moreno Valley
10	Redlands Boulevard from Driveway 7 to Encelia Avenue	City of Moreno Valley
11	Redlands Boulevard from Encelia Avenue to Cottonwood Avenue	City of Moreno Valley
12	Redlands Boulevard from Cottonwood to Alessandro Boulevard	City of Moreno Valley
13	Redlands Boulevard from Alessandro Boulevard to Cactus Avenue	City of Moreno Valley
14	John F. Kennedy Drive from Cactus Avenue to Moreno Beach Drive	City of Moreno Valley
15	Moreno Beach Drive from SR-60 Westbound Ramps to SR-60 Eastbound Ramps	Caltrans
16	Moreno Beach Drive from SR-60 Eastbound Ramps to Eucalyptus Avenue	City of Moreno Valley
17	Moreno Beach Drive from Alessandro Boulevard to Cactus Avenue	City of Moreno Valley
18	Moreno Beach Drive from Cactus Avenue to JFK Drive	City of Moreno Valley
19	Moreno Beach Drive from John F. Kennedy Drive to Oliver Street	City of Moreno Valley
20	Iris Avenue from Nason Street to Oliver Street	City of Moreno Valley
21	Iris Avenue from Lasselle Street to Nason Street	City of Moreno Valley
22	Iris Avenue from Kitching Street to Lasselle Street	City of Moreno Valley
23	Eucalyptus Avenue from Nason Street to Fir Avenue	City of Moreno Valley
24	Eucalyptus Avenue from Fir Avenue to Moreno Beach Drive	City of Moreno Valley
25	Eucalyptus Avenue from Moreno Beach Drive to Auto Mall Drive	City of Moreno Valley
26	Eucalyptus Avenue from Auto Mall Drive to Driveway 1	City of Moreno Valley
27	Eucalyptus Avenue from Driveway 1 to Aldi Place	City of Moreno Valley
28	Eucalyptus Avenue Aldi Place to Driveway 5	City of Moreno Valley
29	Eucalyptus Avenue from Driveway 5 to Redlands Boulevard	City of Moreno Valley
30	Eucalyptus Avenue from Redlands Boulevard to World Logistics Center Driveway	City of Moreno Valley
31	Encelia Avenue from Essen Lane to Mozart Way	City of Moreno Valley
32	Encelia Avenue from Mozart Way to Shubert Street	City of Moreno Valley
33	Encelia Avenue Shubert Street to Redlands Boulevard	City of Moreno Valley
34	Alessandro Boulevard from Lasselle Street to Nason Street	City of Moreno Valley
35	Alessandro Boulevard from Nason Street to Moreno Beach Drive	City of Moreno Valley
36	Alessandro Boulevard from Moreno Beach Drive to Redlands Boulevard	City of Moreno Valley

Source: (Translutions, 2020b, pp. 3-4)



Table 4.12-5 Intersection LOS Thresholds

LOS	Description of Drivers' Perception and Traffic Operation	Intersection Delay in Seconds	
		Unsignalized	Signalized
A	This level is typically assigned when the volume-to-capacity ratio is low and either progression is exceptionally favorable, or the cycle length is very short. If it is due to favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.	≤ 10	≤ 10
B	This level is assigned when the volume-to-capacity ratio is low and either progression is highly favorable, or the cycle length is short. More vehicles stop than with LOS A.	> 10 and ≤ 15	> 10 and ≤ 20
C	This level is typically assigned when progression is favorable, or the cycle length is moderate. Individual cycle failures (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear at this level. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.	> 15 and ≤ 25	> 20 and ≤ 35
D	This level is typically assigned when the volume-to-capacity ratio is high and either progression is ineffective, or the cycle length is long. Many vehicles stop and individual cycle failures are noticeable.	> 25 and ≤ 35	> 35 and ≤ 55
E	This level is typically assigned when the volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.	> 35 and ≤ 50	> 55 and ≤ 80
F	This level is typically assigned when the volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.	> 50	> 80

Source: (Translutions, 2020a, Table B; Translutions, 2020b, Table B)

Table 4.12-6 Roadway Segment LOS Thresholds

Roadway Classification	Level of Service				
	A	B	C	D	E
Six-Lane Divided Arterial	33,900	39,400	45,000	50,600	56,300
Four-Lane Divided Arterial	22,500	26,300	30,000	33,800	37,500
Four-Lane Undivided Arterial	15,000	17,500	20,000	22,500	25,000
Two-Lane Industrial Collector	7,500	8,800	10,000	11,300	12,500
Two-Lane Undivided Residential	N/A	N/A	N/A	N/A	2,000

Source: (Translutions, 2020a, Table C; Translutions, 2020b, Table C)



Table 4.12-7 Project Trip Generation Summary – Warehouse Distribution/Logistics

Land Use	Units	Peak Hour						Daily
		AM Peak Hour			PM Peak Hour			
		In	Out	Total	In	Out	Total	
Total Vehicle Rates								
Trip Generation Rates ¹	TSF	0.131	0.039	0.170	0.051	0.139	0.190	1.740
PCE Inbound/Outbound Splits		77%	23%	100%	27%	73%	100%	50%/50%
Passenger Car Equivalent Rates Calculations								
Passenger Cars								
Recommended Mix (%) ²		61.90%	61.90%	61.90%	61.90%	61.90%	61.90%	61.90%
PCE Factor ³		1.0	1.0	1.0	1.0	1.0	1.0	1.0
PCE Rates		0.477	0.024	0.105	0.032	0.086	0.118	1.077
2-Axle Trucks								
Recommended Mix (%) ²		6.45%	6.45%	6.45%	6.45%	6.45%	6.45%	6.45%
PCE Factor ³		1.5	1.5	1.5	1.5	1.5	1.5	1.5
PCE Rates		0.013	0.004	0.016	0.005	0.013	0.018	0.168
3-Axle Trucks								
Recommended Mix (%) ²		8.65%	8.65%	8.65%	8.65%	8.65%	8.65%	8.65%
PCE Factor ³		2.0	2.0	2.0	2.0	2.0	2.0	2.0
PCE Rates		0.023	0.007	0.029	0.009	0.024	0.033	0.301
4-Axle Trucks								
Recommended Mix (%) ²		22.99%	22.99%	22.99%	22.99%	22.99%	22.99%	22.99%
PCE Factor ³		3.0	3.0	3.0	3.0	3.0	3.0	3.0
PCE Rates		0.090	0.027	0.117	0.035	0.096	0.131	1.200
Warehouse Net PCE Rate		0.602	0.062	0.268	0.081	0.219	0.300	2.747
Total Project Trip Generation (Trips, By Vehicle Type)								
Warehouse	1,332.38 TSF							
Passenger Cars		109	32	141	43	114	157	1,436
2-Axle Trucks		12	3	15	5	12	17	150
3-Axle Trucks		15	5	20	6	16	22	201
4+ Axle Trucks		41	12	53	17	42	59	534
All Trucks		68	20	88	28	70	98	885
Total Vehicles		245	52	229	71	184	255	2,321
Total Project Trip Generation (Passenger Car Equivalent Trips, By Vehicle Type)								
Passenger Cars		109	32	141	43	114	157	1,436
Truck PCE								
2-Axle Trucks		18	5	23	8	18	26	225
3-Axle Trucks		30	10	40	12	32	44	402
4+ Axle Trucks		123	36	159	51	126	177	1,602
Total Truck PCE		171	51	222	71	176	247	2,229
Total PCE		280	83	363	114	290	404	3,665

¹Rate based on Land Use 150 “Warehousing” from Institute of Transportation Engineers (ITE) Trip generation (10th Ed.).

²Recommended Truck Mix Percentages per SCAQMD Truck Trip Generation Study.

³Recommended PCE Factor per SBCTA Guidelines

Source: (Translutions, 2020a, Table A)



Table 4.12-8 Project Trip Generation Summary – Fulfillment/E-Commerce

Land Use	Units	Peak Hour						Daily	
		AM Peak Hour			PM Peak Hour				
		In	Out	Total	In	Out	Total		
Total Vehicle Rates									
Total Vehicle Rates									
Trip Generation Rates ¹	1,332.38	TSF	0.2910	0.0717	0.3673	0.4087	0.3883	0.7970	4.9591
Trip Generation			388	96	489	545	517	1062	6,607
Passenger Car Equivalent Rates Calculations									
Passenger Cars									
Trip Generation Rates ¹	1,332.38	TSF	0.2800	0.0592	0.3392	0.3998	0.3733	0.7731	4.3155
Trip Generation			373	79	452	533	497	1030	5,750
PCE Factor ²			1.0	1.0	1.0	1.0	1.0	1.0	1.0
PCEs			373	79	452	533	497	1030	5,750
2-Axle Trucks									
Trip Generation Rates ¹			0.0009	0.0009	0.0019	0.0002	0.0010	0.0011	0.1329
Trip Generation			1	1	3	0	1	2	177
PCE Factor ²			1.5	1.5	1.5	1.5	1.5	1.5	1.5
PCEs			2	2	5	0	2	3	266
3-Axle Trucks									
Trip Generation Rates ¹			0.0027	0.0030	0.0057	0.0013	0.0025	0.0038	0.1149
Trip Generation			4	4	8	2	3	5	153
PCE Factor ²			2.0	2.0	2.0	2.0	2.0	2.0	2.0
PCEs			8	8	16	4	6	10	306
4-Axle Trucks									
Trip Generation Rates ¹			0.0074	0.0085	0.0205	0.0074	0.0116	0.0190	0.3957
Trip Generation			10	11	27	10	15	25	527
PCE Factor ²			3.0	3.0	3.0	3.0	3.0	3.0	3.0
PCEs			30	33	81	30	45	75	1,581
Total Project Trip Generation (Trips, By Vehicle Type)									
Warehouse	1,332.38	TSF							
Passenger Cars			373	79	452	533	497	1,030	5,750
2-Axle Trucks			1	1	3	0	1	2	177
3-Axle Trucks			4	4	8	2	3	5	153
4+ Axle Trucks			10	11	27	10	15	25	527
All Trucks			15	16	38	12	19	32	857
Total Vehicles			403	95	490	545	516	1,062	6,607
Total Project Trip Generation (Passenger Car Equivalent Trips, By Vehicle Type)									
Passenger Cars			373	79	452	533	497	1,030	5,750
Truck PCE									
2-Axle Trucks			2	2	5	0	2	3	266
3-Axle Trucks			8	8	16	4	6	10	306
4+ Axle Trucks			30	33	81	30	45	75	1,581
Total Truck PCE			40	43	102	34	53	88	2,153
Total PCE			413	122	554	567	550	1,118	7,903

¹Trips based on Surveys and application to Proposed Project.

²Recommended PCE Factor per SBCTA Guidelines

Source: (Translutions, 2020b, Table A)



Table 4.12-9 Existing plus Project Intersection Analysis – Warehouse Distribution/Logistics

Intersection	LOS Standard	Jurisdiction	Control	Without Project				With Project				Change in Delay		Exceed City's Operational Requirement?
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour	PM Peak Hour	
				Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS			
1. Moreno Beach Dr/SR-60 Westbound Ramps	D	Caltrans	Signal	16.5	B	15.2	B	13.5	B	19.1	B	-	-	-
2. Moreno Beach Dr/SR-60 Eastbound Ramps	D	Caltrans	Signal	89.1	F *	>100	F *	>100	F *	>100	F *	-	-	-
3. Moreno Beach Dr/Eucalyptus Avenue	D	Moreno Valley	Signal	30.2	C	32.5	C	32.4	C	37.8	D	2.2	5.3	NO
4. Auto Mall Dr/Eucalyptus Avenue	D	Moreno Valley	TWSC	10.1	B	10.9	B	11.1	B	12.6	B	1.0	1.7	NO
5. Driveway 1/Eucalyptus Avenue	D	Moreno Valley	TWSC	9.2	A		A	10.4	B	10.4	B	1.2	10.4	NO
6. Driveway 2-Essen Ln/Encilia Avenue	D	Moreno Valley	TWSC	8.4	A	8.3	A	8.7	A	8.8	A	0.3	0.5	NO
7. Driveway 3/Encilia Avenue	D	Moreno Valley	TWSC	8.4	A	8.3	A	8.9	A	9.0	A	0.5	0.7	NO
8. Driveway 4-Shubert Street/Encilia Avenue	D	Moreno Valley	TWSC	8.4	A	8.3	A	9.1	A	9.2	A	0.7	0.9	NO
9. Driveway 5/Eucalyptus Avenue	D	Moreno Valley	TWSC					8.6	A	8.9	A	8.6	8.9	NO
10. Redlands Boulevard/SR-60 Westbound Ramps	D	Caltrans	Signal	27.5	C	39.9	D	27.6	C	40.8	D	-	-	-
11. Redlands Boulevard/SR-60 Eastbound Ramps	D	Caltrans	Signal	20.4	C	25.0	C	25.6	C	25.2	C	-	-	-
12. Redlands Boulevard/Eucalyptus Avenue	D	Moreno Valley	Signal	8.9	A	6.5	A	10.1	B	14.3	B	1.2	7.8	NO
13. Redlands Boulevard/Driveway 6	D	Moreno Valley	TWSC					9.8	A	10.3	B	9.8	10.3	NO
14. Redlands Boulevard/Driveway 7	D	Moreno Valley	TWSC					9.7	A	10.4	B	9.7	10.4	NO
15. Redlands Boulevard/Encilia Avenue	D	Moreno Valley	Signal	20.5	C	18.2	C	2.5	A	0.5	A	-18.0	-17.7	NO

LOS = Level of Service

Source: (Translutions, 2020a, Table D)

Table 4.12-10 Existing plus Project Roadway Segment Analysis – Warehouse Distribution/Logistics

Roadway Segment	Jurisdiction	LOS Standard	Classification	Roadway Capacity	Without Project			Classification	Roadway Capacity	With Project			Change in V/C	Exceed City's Operational Requirement?
					Daily Volume	LOS	V/C			Daily Volume	LOS	V/C		
1. Redlands Blvd from SR-60 WB Ramps to SR-60 EB Ramps	Caltrans	D	2U	12,500	14,403	F *	1.152	2U	12,500	15,322	F *	1.226	-	-
2. Redlands Blvd from SR-60 EB Ramps to Eucalyptus Ave	City of Moreno Valley	D	2U	12,500	12,290	E *	0.983	2U	12,500	14,015	F *	1.121	0.138	YES
3. Redlands Blvd from Eucalyptus Ave to Driveway 6	City of Moreno Valley	D	2U	12,500	12,535	F *	1.003	4U	25,000	13,515	A	0.541	-0.462	NO
4. Redlands Blvd from Driveway 6 to Driveway 7	City of Moreno Valley	D	2U	12,500	12,535	F *	1.003	4U	25,000	13,501	A	0.540	-0.463	NO
5. Redlands Blvd from Driveway 7 to Encilia Ave	City of Moreno Valley	D	2U	12,500	12,535	F *	1.003	4U	25,000	13,174	A	0.527	-0.476	NO
6. Moreno Beach Dr from SR-60 WB Ramps to SR-60 EB Ramps	Caltrans	D	2U	12,500	12,724	F *	1.018	2U	12,500	13,401	F *	1.072	-	-
7. Moreno Beach Dr from SR-60 EB Ramps to Eucalyptus Ave	City of Moreno Valley	D	4D	37,500	23,934	B	0.638	4D	37,500	25,243	B	0.673	0.035	NO
8. Eucalyptus Ave from Moreno Beach Dr to Auto Mall Dr	City of Moreno Valley	D	2U	12,500	3,673	A	0.294	2U	12,500	5,097	A	0.408	0.114	NO
9. Eucalyptus Ave from Auto Mall Dr to Driveway 1	City of Moreno Valley	D	4U	25,000	1,617	A	0.065	4U	25,000	3,099	A	0.124	0.059	NO
10. Eucalyptus Ave from Driveway 1 to Aldi Pl	City of Moreno Valley	D	3U	18,750	1,507	A	0.080	4U	25,000	2,930	A	0.117	0.037	NO
11. Eucalyptus Ave Aldi Pl to Driveway 5	City of Moreno Valley	D	3U	18,750	2,424	A	0.129	4U	25,000	3,847	A	0.154	0.025	NO
12. Eucalyptus Ave from Driveway 5 to Redlands Blvd	City of Moreno Valley	D	3U	18,750	2,424	A	0.129	4U	25,000	3,958	A	0.158	0.029	NO
13. Encilia Ave from Essen Ln to Mozart Way	City of Moreno Valley	D	2UR	2,000	217	A	0.108	4U	25,000	361	A	0.014	-0.094	NO
14. Encilia Ave from Mozart Way to Shubert St	City of Moreno Valley	D	2UR	2,000	217	A	0.108	4U	25,000	569	A	0.023	-0.086	NO
15. Encilia Ave Shubert St to Redlands Blvd	City of Moreno Valley	D	2UR	2,000	475	A	0.237	4U	25,000	1,114	A	0.045	-0.193	NO

LOS = Level of Service, 2MA = 2-Lane Mountain Arterial, 2U = 2-Lane Undivided, 4U = 4-Lane Undivided, 6D = 6-Lane Divided, 4D = 4-Lane Divided 2UR = 2-Lane Undivided Residential

Source: (Translutions, 2020a, Table E)



Table 4.12-11 Existing plus Project Intersection Analysis – Fulfillment/E-Commerce

Intersection	LOS Standard	Jurisdiction	Control	Without Project				With Project				Change in Delay		Exceed City's Operational Requirement?
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour	PM Peak Hour	
				Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS			
1 . Kitching St/Iris Ave	C	Moreno Valley	Signal	34.4	C	32.8	C	34.6	C	33.4	C	0.2	0.6	NO
2 . Lasselle St/Alessandro Blvd	D	Moreno Valley	Signal	42.7	D	43.9	D	46.1	D	44.7	D	3.4	0.8	NO
3 . Lasselle St/Iris Ave	D	Moreno Valley	Signal	40.8	D	41.9	D	40.9	D	42.1	D	0.1	0.2	NO
4 . Nason St/Eucalyptus Ave	D	Moreno Valley	Signal	43.4	D	27.3	C	43.6	D	28.1	C	0.2	0.8	NO
5 . Nason St/Alessandro Blvd	D	Moreno Valley	Signal	39.1	D	29.4	C	39.4	D	30.3	C	0.3	0.9	NO
6 . Nason St/Iris Ave	C	Moreno Valley	Signal	24.2	C	22.6	C	24.2	C	22.6	C	0.0	0.0	NO
7 . Fir Ave/Eucalyptus Ave	D	Moreno Valley	Signal	23.5	C	21.3	C	23.7	C	21.5	C	0.2	0.2	NO
8 . Oliver St/Iris Ave	D	Moreno Valley	Signal	28.5	C	23.5	C	29.3	C	23.8	C	0.8	0.3	NO
9 . Moreno Beach Dr/SR-60 WB Ramps	D	Caltrans	Signal	16.5	B	15.2	B	17.1	B	15.4	B	-	-	-
10 . Moreno Beach Dr/SR-60 EB Ramps	D	Caltrans	Signal	89.1	F *	>100	F *	>100	F *	>100	F *	-	-	-
11 . Moreno Beach Dr/Eucalyptus Ave	D	Moreno Valley	Signal	30.2	C	32.5	C	33.3	C	39.9	D	3.1	7.4	NO
12 . Auto Mall Dr/Eucalyptus Ave	D	Moreno Valley	TWSC	10.1	B	10.9	B	11.6	B	16.3	C	1.5	5.4	NO
13 . Moreno Beach Dr/Alessandro Blvd	D	Moreno Valley	Signal	39.3	D	30.6	C	39.4	D	37.7	D	0.1	7.1	NO
14 . Moreno Beach Blvd/Cactus Ave	C	Moreno Valley	Signal	26.2	C	29.7	C	26.6	C	29.8	C	0.4	0.1	NO
15 . Moreno Beach Dr/John F Kennedy Dr	D	Moreno Valley	Signal	29.4	C	28.1	C	29.5	C	28.7	C	0.1	0.6	NO
16 . Alessandro Rd/San Timoteo Canyon Rd	C	Redlands	AWSC	59.6	F *	16.2	C	64.6	F *	18.7	C	-	-	-
17 . Live Oak Canyon Rd/San Timoteo Canyon Rd	C	Riverside County	AWSC	74.3	F *	60.7	F *	80.7	F *	80.0	F *	-	-	-
18 . Redlands Blvd/San Timoteo Canyon Rd	C	Riverside County	AWSC	86.2	F *	>100	F *	95.6	F *	>100	F *	-	-	-
19 . Dwy 1/Eucalyptus Ave	D	Moreno Valley	TWSC	9.2	A		A	10.6	B	13.0	B	1.4	13.0	NO
20 . Dwy 2-Essen Ln/Encilia Ave	D	Moreno Valley	TWSC	8.4	A	8.3	A	8.8	A	7.3	A	0.4	-1.0	NO
21 . Dwy 3/Encilia Ave	D	Moreno Valley	TWSC	8.4	A	8.3	A	9.5	A	11.0	B	1.1	2.7	NO
22 . Dwy 4-Shubert St/Encilia Ave	D	Moreno Valley	TWSC	8.4	A	8.3	A	10.3	B	13.4	B	1.9	5.1	NO
23 . Dwy 5/Eucalyptus Ave	D	Moreno Valley	TWSC					8.8	A	9.1	A	8.8	9.1	NO
24 . Redlands Blvd/Ironwood Ave	D	Moreno Valley	Signal	19.8	B	13.8	B	20.1	C	13.8	B	0.3	0.0	NO
25 . Redlands Blvd/SR-60 WB Ramps	D	Caltrans	Signal	27.5	C	39.9	D	27.6	C	47.3	D	-	-	-
26 . Redlands Blvd/SR-60 EB Ramps	D	Caltrans	Signal	20.4	C	25.0	C	28.8	C	26.9	C	-	-	-
27 . Redlands Blvd/Eucalyptus Ave	D	Moreno Valley	Signal	8.9	A	6.5	A	12.2	B	18.3	B	3.3	11.8	NO
28 . Redlands Blvd/Dwy 6	D	Moreno Valley	TWSC					10.1	B	11.9	B	10.1	11.9	NO
29 . Redlands Blvd/Dwy 7	D	Moreno Valley	TWSC					10.0	B	11.8	B	10.0	11.8	NO
30 . Redlands Blvd/Encilia Ave	D	Moreno Valley	TWSC	20.5	C	18.2	C	6.5	A	5.8	A	-14.0	-12.4	NO
31 . Redlands Blvd/Cottonwood Ave	C	Moreno Valley	Signal	7.0	A	5.5	A	2.0	A	2.6	A	-5.0	-2.9	NO
32 . Redlands Blvd/Alessandro Blvd	C	Moreno Valley	AWSC	26.7	D *	26.7	D *	41.3	E *	70.9	F *	14.6	44.2	YES
33 . Redlands Blvd-John F Kennedy Dr/Cactus Ave	C	Moreno Valley	AWSC	11.1	B	11.3	B	11.4	B	11.8	B	0.3	0.5	NO
34 . WLC Parkway/Eucalyptus Ave	D	Moreno Valley	TWSC	10.0	B	9.6	A	10.4	B	10.2	B	0.4	0.6	NO

*Exceeds LOS Standard

TWSC = Two-Way Stop Control; For TWSC intersections, reported delay is for worst-case approach/movement.

LOS = Level of Service

Source: (Translutions, 2020b, Table D)



Table 4.12-12 Existing plus Project Roadway Segment Analysis – Fulfillment/E-Commerce

Roadway Segment	Jurisdiction	LOS Standard	Classification	Roadway Capacity	Without Project			Classification	Roadway Capacity	With Project			Change in VIC	Exceed City's Operational Requirement?
					Daily Volume	LOS	VIC			Daily Volume	LOS	VIC		
1. San Timoteo Canyon Rd from Alessandro Rd to Live Oak Canyon Rd	City of Redlands/Riverside County	C	2MA	16,100	13,775	D *	0.856	2MA	16,100	14,177	D *	0.881	-	-
2. San Timoteo Canyon Rd from Live Oak Canyon Rd to Redlands Blvd	Riverside County	C	2MA	16,100	17,208	F *	1.069	2MA	16,100	17,668	F *	1.097	-	-
3. Redlands Blvd south of San Timoteo Canyon Rd	Riverside County	C	2MA	16,100	17,452	F *	1.084	2MA	16,100	17,912	F *	1.113	-	-
4. Redlands Blvd north of Ironwood Ave	City of Moreno Valley	C	2U	12,500	18,086	F *	1.447	2U	12,500	18,546	F *	1.484	0.037	NO
5. Redlands Blvd from Ironwood Ave to SR-60 WB Ramps	City of Moreno Valley	D	2U	12,500	15,092	F *	1.207	2U	12,500	15,552	F *	1.244	0.037	NO
6. Redlands Blvd from SR-60 WB Ramps to Alessandro Blvd	Caltrans	D	2U	12,500	14,403	F *	1.152	2U	12,500	16,055	F *	1.284	-	-
7. Redlands Blvd from SR-60 EB Ramps to Eucalyptus Ave	City of Moreno Valley	D	2U	12,500	12,290	E *	0.983	2U	12,500	15,136	F *	1.211	0.228	YES
8. Redlands Blvd from Eucalyptus Ave to Driveway 6	City of Moreno Valley	D	2U	12,500	12,535	F *	1.003	4U	25,000	15,447	B	0.618	-0.385	NO
9. Redlands Blvd from Driveway 6 to Driveway 7	City of Moreno Valley	D	2U	12,500	12,535	F *	1.003	4U	25,000	15,389	B	0.616	-0.387	NO
10. Redlands Blvd from Driveway 7 to Encilia Ave	City of Moreno Valley	D	2U	12,500	12,535	F *	1.003	4U	25,000	15,094	B	0.604	-0.399	NO
11. Redlands Blvd from Encilia Ave to Cottonwood Ave	City of Moreno Valley	C	2U	12,500	10,585	D *	0.847	2U	12,500	12,081	E *	0.966	0.120	YES
12. Redlands Blvd from Cottonwood Ave to Alessandro Blvd	City of Moreno Valley	C	2U	12,500	9,391	C	0.751	2U	12,500	10,771	D *	0.862	0.110	YES
13. Redlands Blvd from Alessandro Blvd to Cactus Ave	City of Moreno Valley	C	2U	12,500	8,501	B	0.680	2U	12,500	8,847	C	0.708	0.028	NO
14. JFK Dr from Cactus Ave to Moreno Beach Dr	City of Moreno Valley	C	4U	25,000	5,797	A	0.232	4U	25,000	6,027	A	0.241	0.009	NO
15. Moreno Beach Dr from SR-60 WB Ramps to SR-60 EB Ramps	Caltrans	D	2U	12,500	12,724	F *	1.018	2U	12,500	14,075	F *	1.126	-	-
16. Moreno Beach Dr from SR-60 EB Ramps to Eucalyptus Ave	City of Moreno Valley	D	4D	37,500	23,934	B	0.638	4D	37,500	26,464	C	0.706	0.067	YES
17. Moreno Beach Dr from Alessandro Blvd to Cactus Ave	City of Moreno Valley	D	2U	12,500	18,862	F *	1.509	2U	12,500	19,264	F *	1.541	0.032	NO
18. Moreno Beach Dr from Cactus Ave to JFK Dr	City of Moreno Valley	C	6D	56,300	15,452	A	0.274	6D	56,300	15,854	A	0.282	0.007	NO
19. Moreno Beach Dr from JFK Dr to Oliver St	City of Moreno Valley	D	6D	56,300	15,898	A	0.282	6D	56,300	16,530	A	0.294	0.011	NO
20. Iris Ave from Nason St to Oliver St	City of Moreno Valley	D	6D	56,300	19,248	A	0.342	6D	56,300	19,766	A	0.351	0.009	NO
21. Iris Ave from Lasselle St to Nason St	City of Moreno Valley	D	6D	56,300	30,134	A	0.535	6D	56,300	30,652	A	0.544	0.009	NO
22. Iris Ave from Kitching St to Lasselle St	City of Moreno Valley	D	6D	56,300	26,472	A	0.470	6D	56,300	26,760	A	0.475	0.005	NO
23. Eucalyptus Ave from Nason St to Fir Ave	City of Moreno Valley	D	4U	25,000	9,376	A	0.375	4U	25,000	9,664	A	0.387	0.012	NO
24. Eucalyptus Ave from Fir Ave to Moreno Beach Dr	City of Moreno Valley	D	4D	37,500	14,002	A	0.373	4D	37,500	14,290	A	0.381	0.008	NO
25. Eucalyptus Ave from Moreno Beach Dr to Auto Mall Dr	City of Moreno Valley	D	2U	12,500	3,673	A	0.294	2U	12,500	6,663	A	0.533	0.239	NO
26. Eucalyptus Ave from Auto Mall Dr to Driveway 1	City of Moreno Valley	D	4U	25,000	1,617	A	0.065	4U	25,000	4,837	A	0.193	0.129	NO
27. Eucalyptus Ave from Driveway 1 to Aldi Pl	City of Moreno Valley	D	3U	18,750	1,507	A	0.080	4U	25,000	4,496	A	0.180	0.099	NO
28. Eucalyptus Ave Aldi Pl to Driveway 5	City of Moreno Valley	D	3U	18,750	2,424	A	0.129	4U	25,000	5,413	A	0.217	0.087	NO
29. Eucalyptus Ave from Driveway 5 to Redlands Blvd	City of Moreno Valley	D	3U	18,750	2,424	A	0.129	4U	25,000	5,523	A	0.221	0.092	NO
30. Eucalyptus Ave from Redlands Blvd to World Logistics Center Driveway	City of Moreno Valley	D	2U	12,500	2,612	A	0.209	2U	12,500	2,900	A	0.232	0.023	NO
31. Encilia Ave from Essen Ln to Mozart Way	City of Moreno Valley	D	2UR	2,000	217	A	0.108	4U	25,000	793	A	0.032	-0.077	NO
32. Encilia Ave from Mozart Way to Shubert St	City of Moreno Valley	D	2UR	2,000	217	A	0.108	4U	25,000	1,627	A	0.065	-0.043	NO
33. Encilia Ave Shubert St to Redlands Blvd	City of Moreno Valley	D	2UR	2,000	475	A	0.237	4U	25,000	3,034	A	0.121	-0.116	NO
34. Alessandro Blvd from Lasselle St to Nason St	City of Moreno Valley	D	2U	12,500	10,745	D	0.860	2U	12,500	11,033	D	0.883	0.023	NO
35. Alessandro Blvd from Nason St to Moreno Beach Dr	City of Moreno Valley	D	2U	12,500	9,553	C	0.764	2U	12,500	10,071	D	0.806	0.041	NO
36. Alessandro Blvd from Moreno Beach Dr to Redlands Blvd	City of Moreno Valley	D	2U	12,500	5,549	A	0.444	2U	12,500	6,469	A	0.518	0.074	NO

LOS = Level of Service, 2MA = 2-Lane Mountain Arterial, 2U = 2-Lane Undivided, 4U = 4-Lane Undivided, 6D = 6-Lane Divided, 4D = 4-Lane Divided, 2UR = 2-Lane Undivided Residential

Source: (Translutions, 2020b, Table E)

Table 4.12-13 Opening Year (2024) Intersection Analysis – Warehouse Distribution/Logistics

Intersection	LOS Standard	Jurisdiction	Control	Without Project				With Project				Change in Delay		Exceed City's Operational Requirement?
				AM Peak Hour Delay	LOS	PM Peak Hour Delay	LOS	AM Peak Hour Delay	LOS	PM Peak Hour Delay	LOS	AM Peak Hour	PM Peak Hour	
1. Moreno Beach Dr/SR-60 Westbound	D	Caltrans	Signal	16.9	B	16.1	B	12.6	B	13.9	B	-	-	-
2. Moreno Beach Dr/SR-60 Eastbound	D	Caltrans	Signal	>100	F *	>100	F *	>100	F *	>100	F *	-	-	-
3. Moreno Beach Dr/Eucalyptus Avenue	D	Moreno Valley	Signal	30.4	C	37.1	D	35.1	D	46.3	D	4.7	9.2	NO
4. Auto Mall Dr/Eucalyptus Avenue	D	Moreno Valley	TWSC	10.5	B	11.7	B	11.5	B	13.8	B	1.0	2.1	NO
5. Driveway 1/Eucalyptus Avenue	D	Moreno Valley	TWSC	9.5	A		A	10.7	B	10.6	B	1.2	10.6	NO
6. Driveway 2-Essen Ln/Encilia Avenue	D	Moreno Valley	TWSC	8.4	A	8.3	A	8.7	A	8.8	A	0.3	0.5	NO
7. Driveway 3/Encilia Avenue	D	Moreno Valley	TWSC	8.5	A	8.3	A	8.9	A	9.0	A	0.4	0.7	NO
8. Driveway 4-Shubert Street/Encilia Ave	D	Moreno Valley	TWSC	8.4	A	8.3	A	9.2	A	9.2	A	0.8	0.9	NO
9. Driveway 5/Eucalyptus Avenue	D	Moreno Valley	TWSC					8.7	A	8.9	A	-	-	-
10. Redlands Boulevard/SR-60 Westbound	D	Caltrans	Signal	37.4	D	64.5	E *	40.1	D	65.1	E *	-	-	-
11. Redlands Boulevard/SR-60 Eastbound	D	Caltrans	Signal	40.9	D	32.1	C	43.7	D	38.5	D	2.8	6.4	NO
12. Redlands Boulevard/Eucalyptus Ave	D	Moreno Valley	Roundabout	16.0	C	8.4	A	19.7	C	10.4	B	3.7	2.0	NO
13. Redlands Boulevard/Driveway 6	D	Moreno Valley	TWSC					10.1	B	11.5	B	10.1	11.5	NO
14. Redlands Boulevard/Driveway 7	D	Moreno Valley	TWSC					10.1	B	11.6	B	10.1	11.6	NO
15. Redlands Boulevard/Encilia Avenue	D	Moreno Valley	Signal	30.5	D	26.9	D	2.4	A	1.2	A	-28.1	-25.7	NO

Notes: LOS – Level of Service

Source: (Translutions, 2020a, Table F)



Table 4.12-14 Opening Year (2024) Roadway Segment Analysis – Warehouse Distribution/Logistics

Roadway Segment	Jurisdiction	LOS Standard	Classification	Roadway Capacity	Without Project			Classification	Roadway Capacity	With Project			Change in V/C	Operational Requirement?
					Daily Volume	LOS	V/C			Daily Volume	LOS	V/C		
1. Redlands Blvd from SR-60 WB Ramps to SR-60 EB Ramps	Caltrans	D	2U	12,500	18,155	F *	1.452	2U	12,500	19,074	F *	1.526	-	-
2. Redlands Blvd from SR-60 EB Ramps to Eucalyptus Ave	City of Moreno Valley	D	2U	12,500	16,324	F *	1.306	2U	12,500	18,049	F *	1.444	0.138	YES
3. Redlands Blvd from Eucalyptus Ave to Driveway 6	City of Moreno Valley	D	2U	12,500	15,044	F *	1.203	4U	25,000	16,024	B	0.641	-0.563	NO
4. Redlands Blvd from Driveway 6 to Driveway 7	City of Moreno Valley	D	2U	12,500	15,044	F *	1.203	4U	25,000	16,010	B	0.640	-0.563	NO
5. Redlands Blvd from Driveway 7 to Encilia Ave	City of Moreno Valley	D	2U	12,500	15,044	F *	1.203	4U	25,000	15,683	B	0.627	-0.576	NO
6. Moreno Beach Dr from SR-60 WB Ramps to SR-60 EB Ramps	Caltrans	D	2U	12,500	18,159	F *	1.453	2U	12,500	18,836	F *	1.507	-	-
7. Moreno Beach Dr from SR-60 EB Ramps to Eucalyptus Ave	City of Moreno Valley	D	4D	37,500	32,941	D	0.878	4D	37,500	34,250	E *	0.913	0.035	NO
8. Eucalyptus Ave from Moreno Beach Dr to Auto Mall Dr	City of Moreno Valley	D	2U	12,500	6,371	A	0.510	2U	12,500	7,795	B	0.624	0.114	NO
9. Eucalyptus Ave from Auto Mall Dr to Driveway 1	City of Moreno Valley	D	4U	25,000	2,943	A	0.118	4U	25,000	4,425	A	0.177	0.059	NO
10. Eucalyptus Ave from Driveway 1 to Aldi Pl	City of Moreno Valley	D	3U	18,750	2,822	A	0.150	4U	25,000	4,245	A	0.170	0.019	NO
11. Eucalyptus Ave from Aldi Pl to Driveway 5	City of Moreno Valley	D	3U	18,750	3,834	A	0.204	4U	25,000	5,257	A	0.210	0.006	NO
12. Eucalyptus Ave from Driveway 5 to Redlands Blvd	City of Moreno Valley	D	3U	18,750	3,834	A	0.204	4U	25,000	5,368	A	0.215	0.010	NO
13. Encilia Ave from Essen Ln to Mozart Way	City of Moreno Valley	D	2UR	2,000	240	A	0.120	4U	25,000	384	A	0.015	-0.104	NO
14. Encilia Ave from Mozart Way to Shubert St	City of Moreno Valley	D	2UR	2,000	240	A	0.120	4U	25,000	592	A	0.024	-0.096	NO
15. Encilia Ave Shubert St to Redlands Blvd	City of Moreno Valley	D	2UR	2,000	524	A	0.262	4U	25,000	1,163	A	0.047	-0.215	NO

Notes: LOS = Level of Service, 2MA = 2-Lane Mountain Arterial, 2U = 2-Lane Undivided, 4U = 4-Lane Undivided, 6D = 6-Lane Divided, 4D = 4-Lane Divided, 2UR = 2-Lane Undivided Residential

Source: (Translutions, 2020a, Table G)

Table 4.12-15 Opening Year (2024) Intersection Analysis – Fulfillment/E-Commerce

Intersection	LOS Standard	Jurisdiction	Control	Without Project				With Project				Change in Delay		City's Operational Requirement?
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour	PM Peak Hour	
				Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS			
1. Kitching St/Iris Ave	C	Moreno Valley	Signal	39.7	D *	37.3	D *	40.0	D *	38.2	D *	0.3	0.9	NO
2. Lasselle St/Alessandro Blvd	D	Moreno Valley	Signal	92.7	F *	60.8	E *	93.3	F *	63.6	E *	0.6	2.8	NO
3. Lasselle St/Iris Ave	D	Moreno Valley	Signal	48.6	D	55.0	E *	50.3	D	55.7	E *	1.7	0.7	NO
4. Nason St/Eucalyptus Ave	D	Moreno Valley	Signal	67.2	E *	37.7	D	68.1	E *	38.8	D	0.9	1.1	NO
5. Nason St/Alessandro Blvd	D	Moreno Valley	Signal	42.2	D	36.9	D	42.2	D	37.9	D	0.0	1.0	NO
6. Nason St/Iris Ave	C	Moreno Valley	Signal	30.8	C	29.8	C	31.0	C	32.6	C	0.2	2.8	NO
7. Fir Ave/Eucalyptus Ave	D	Moreno Valley	Signal	25.5	C	25.8	C	26.6	C	26.0	C	1.1	0.2	NO
8. Oliver St/Iris Ave	D	Moreno Valley	Signal	35.6	D	27.8	C	35.9	D	28.0	C	0.3	0.2	NO
9. Moreno Beach Dr/SR-60 WB Ramps	D	Caltrans	Signal	16.9	B	16.1	B	17.3	B	16.2	B	-	-	-
10. Moreno Beach Dr/SR-60 EB Ramps	D	Caltrans	Signal	>100	F *	>100	F *	>100	F *	>100	F *	-	-	-
11. Moreno Beach Dr/Eucalyptus Ave	D	Moreno Valley	Signal	30.4	C	37.1	D	37.0	D	59.0	E *	6.6	21.9	YES
12. Auto Mall Dr/Eucalyptus Ave	D	Moreno Valley	TWSC	10.5	B	11.7	B	12.1	B	18.6	C	1.6	6.9	NO
13. Moreno Beach Dr/Alessandro Blvd	D	Moreno Valley	Signal	70.3	E *	85.2	F *	72.0	E *	>100	F *	1.7	14.2	YES
14. Moreno Beach Blvd/Cactus Ave	C	Moreno Valley	Signal	30.4	C	33.2	C	30.6	C	33.6	C	0.2	0.4	NO
15. Moreno Beach Dr/John F Kennedy Dr	D	Moreno Valley	Signal	30.0	C	28.3	C	30.3	C	29.0	C	0.3	0.7	NO
16. Alessandro Rd/San Timoteo Canyon Rd	C	Redlands	AWSC	>100	F *	24.6	C	>100	F *	31.2	D *	-	-	-
17. Live Oak Canyon Rd/San Timoteo Canyon Rd	C	Riverside County	AWSC	>100	F *	>100	F *	>100	F *	>100	F *	-	-	-
18. Redlands Blvd/San Timoteo Canyon Rd	C	Riverside County	AWSC	>100	F *	>100	F *	>100	F *	>100	F *	-	-	-
19. Dwy 1/Eucalyptus Ave	D	Moreno Valley	TWSC	9.5	A		A	10.9	B	14.4	B	1.4	14.4	NO
20. Dwy 2-Essen Ln/Encilia Ave	D	Moreno Valley	TWSC	8.4	A	8.3	A	8.8	A	7.3	A	0.4	-1.0	NO
21. Dwy 3/Encilia Ave	D	Moreno Valley	TWSC	8.5	A	8.3	A	9.4	A	10.7	B	0.9	2.4	NO
22. Dwy 4-Shubert St/Encilia Ave	D	Moreno Valley	TWSC	8.4	A	8.3	A	10.4	B	13.4	B	2.0	5.1	NO
23. Dwy 5/Eucalyptus Ave	D	Moreno Valley	TWSC					8.9	A	9.2	A	8.9	9.2	NO
24. Redlands Blvd/Ironwood Ave	D	Moreno Valley	Signal	21.0	C	19.5	B	21.0	C	26.3	C	0.0	6.8	NO
25. Redlands Blvd/SR-60 WB Ramps	D	Caltrans	Signal	37.4	D	64.5	E *	41.6	D	71.7	E *	-	-	-
26. Redlands Blvd/SR-60 EB Ramps	D	Caltrans	Signal	40.9	D	32.1	C	37.5	D	49.9	D	-	-	-
27. Redlands Blvd/Eucalyptus Ave	D	Moreno Valley	Roundabout	16.0	C	8.4	A	23.0	C	15.6	C	7.0	7.2	NO
28. Redlands Blvd/Dwy 6	D	Moreno Valley	TWSC					10.5	B	13.6	B	10.5	13.6	NO
29. Redlands Blvd/Dwy 7	D	Moreno Valley	TWSC					10.3	B	13.5	B	10.3	13.5	NO
30. Redlands Blvd/Encilia Ave	D	Moreno Valley	Signal	30.5	D	26.9	D	3.2	A	4.8	A	-27.3	-22.1	NO
31. Redlands Blvd/Cottonwood Ave	C	Moreno Valley	Signal	7.9	A	6.9	A	2.6	A	3.3	A	-5.3	-3.6	NO
32. Redlands Blvd/Alessandro Blvd	C	Moreno Valley	AWSC	95.1	F *	>100	F *	>100	F *	>100	F *	30.3	92.4	YES
33. Redlands Blvd/John F Kennedy Dr/Cactus Ave	C	Moreno Valley	AWSC	21.8	C	31.2	D *	22.8	C	35.2	E *	1.0	4.0	NO
34. WLC Parkway/Eucalyptus Ave	D	Moreno Valley	TWSC	>100	F *	>100	F *	>100	F *	>100	F *	677.7	10626.4	YES

Notes: * Exceeds LOS Standard

TWSC = Two-Way Stop Control; For TWSC intersections, reported delay is for worst-case approach/movement.

LOS = Level of Service

Source: (Translutions, 2020b, Table F)



Table 4.12-16 Opening Year (2024) Roadway Segment Analysis – Fulfillment/E-Commerce

Roadway Segment	Jurisdiction	LOS Standard	Classification	Roadway Capacity	Without Project				Classification	Roadway Capacity	With Project				Change in V/C	Exceed City's Operational Requirement?
					Daily Volume	LOS	V/C	Daily Volume			LOS	V/C				
1. San Timoteo Canyon Rd from Alessandro Rd to Live Oak Canyon Rd	City of Redlands/Riverside County	C	2MA	16,100	15,849	E *	0.984	2MA	16,100	16,251	F *	1.009	-	-		
2. San Timoteo Canyon Rd from Live Oak Canyon Rd to Redlands Blvd	Riverside County	C	2MA	16,100	19,852	F *	1.233	2MA	16,100	20,312	F *	1.262	-	-		
3. Redlands Blvd south of San Timoteo Canyon Rd	Riverside County	C	2MA	16,100	20,216	F *	1.256	2MA	16,100	20,676	F *	1.284	-	-		
4. Redlands Blvd north of Ironwood Ave	City of Moreno Valley	C	2U	12,500	21,242	F *	1.699	2U	12,500	21,702	F *	1.736	0.037	NO		
5. Redlands Blvd from Ironwood Ave to SR-60 WB Ramps	City of Moreno Valley	D	2U	12,500	17,625	F *	1.410	2U	12,500	18,085	F *	1.447	0.037	NO		
6. Redlands Blvd from SR-60 WB Ramps to SR-60 EB Ramps	Caltrans	D	2U	12,500	18,155	F *	1.452	2U	12,500	19,807	F *	1.585	-	-		
7. Redlands Blvd from SR-60 EB Ramps to Eucalyptus Ave	City of Moreno Valley	D	2U	12,500	16,324	F *	1.306	2U	12,500	19,170	F *	1.534	0.228	YES		
8. Redlands Blvd from Eucalyptus Ave to Driveway 6	City of Moreno Valley	D	2U	12,500	15,044	F *	1.203	4U	25,000	17,956	C	0.718	-0.485	NO		
9. Redlands Blvd from Driveway 6 to Driveway 7	City of Moreno Valley	D	2U	12,500	15,044	F *	1.203	4U	25,000	17,898	C	0.716	-0.488	NO		
10. Redlands Blvd from Driveway 7 to Encilia Ave	City of Moreno Valley	D	2U	12,500	15,044	F *	1.203	4U	25,000	17,603	C	0.704	-0.499	NO		
11. Redlands Blvd from Encilia Ave to Cottonwood Ave	City of Moreno Valley	C	2U	12,500	12,891	F *	1.031	2U	12,500	14,387	F *	1.151	0.120	YES		
12. Redlands Blvd from Cottonwood Ave to Alessandro Blvd	City of Moreno Valley	C	2U	12,500	11,794	E *	0.944	2U	12,500	13,174	F *	1.054	0.110	YES		
13. Redlands Blvd from Alessandro Blvd to Cactus Ave	City of Moreno Valley	C	2U	12,500	10,196	D *	0.816	2U	12,500	10,542	D *	0.843	0.028	NO		
14. JFK Dr from Cactus Ave to Moreno Beach Dr	City of Moreno Valley	C	4U	25,000	7,080	A	0.283	4U	25,000	7,310	A	0.292	0.009	NO		
15. Moreno Beach Dr from SR-60 WB Ramps to SR-60 EB Ramps	Caltrans	D	2U	12,500	18,159	F *	1.453	2U	12,500	19,510	F *	1.561	-	-		
16. Moreno Beach Dr from SR-60 EB Ramps to Eucalyptus Ave	City of Moreno Valley	D	4D	37,500	32,941	D	0.878	4D	37,500	35,471	E *	0.946	0.067	YES		
17. Moreno Beach Dr from Alessandro Blvd to Cactus Ave	City of Moreno Valley	D	2U	12,500	25,697	F *	2.056	2U	12,500	26,099	F *	2.088	0.032	NO		
18. Moreno Beach Dr from Cactus Ave to JFK Dr	City of Moreno Valley	C	6D	56,300	22,022	A	0.391	6D	56,300	22,424	A	0.398	0.007	NO		
19. Moreno Beach Dr from JFK Dr to Oliver St	City of Moreno Valley	D	6D	56,300	26,091	A	0.463	6D	56,300	26,723	A	0.475	0.011	NO		
20. Iris Ave from Nason St to Oliver St	City of Moreno Valley	D	6D	56,300	29,723	A	0.528	6D	56,300	30,241	A	0.537	0.009	NO		
21. Iris Ave from Lasselle St to Nason St	City of Moreno Valley	D	6D	56,300	42,358	C	0.752	6D	56,300	42,876	C	0.762	0.009	NO		
22. Iris Ave from Kitching St to Lasselle St	City of Moreno Valley	D	6D	56,300	36,225	B	0.643	6D	56,300	36,513	B	0.649	0.005	NO		
23. Eucalyptus Ave from Nason St to Fir Ave	City of Moreno Valley	D	4U	25,000	11,434	A	0.457	4U	25,000	11,722	A	0.469	0.012	NO		
24. Eucalyptus Ave from Fir Ave to Moreno Beach Dr	City of Moreno Valley	D	4D	37,500	17,687	A	0.472	4D	37,500	17,975	A	0.479	0.008	NO		
25. Eucalyptus Ave from Moreno Beach Dr to Auto Mall Dr	City of Moreno Valley	D	2U	12,500	6,371	A	0.510	2U	12,500	9,361	C	0.749	0.239	NO		
26. Eucalyptus Ave from Auto Mall Dr to Driveway 1	City of Moreno Valley	D	4U	25,000	2,943	A	0.118	4U	25,000	6,163	A	0.247	0.129	NO		
27. Eucalyptus Ave from Driveway 1 to Aldi Pl	City of Moreno Valley	D	3U	18,750	2,822	A	0.150	4U	25,000	5,811	A	0.232	0.082	NO		
28. Eucalyptus Ave from Aldi Pl to Driveway 5	City of Moreno Valley	D	3U	18,750	3,834	A	0.204	4U	25,000	6,823	A	0.273	0.068	NO		
29. Eucalyptus Ave from Driveway 5 to Redlands Blvd	City of Moreno Valley	D	3U	18,750	3,834	A	0.204	4U	25,000	6,933	A	0.277	0.073	NO		
30. Eucalyptus Ave from Redlands Blvd to World Logistics Center Driveway	City of Moreno Valley	D	2U	12,500	6,042	A	0.483	2U	12,500	6,330	A	0.506	0.023	NO		
31. Encilia Ave from Essen Ln to Mozart Way	City of Moreno Valley	D	2UR	2,000	240	A	0.120	4U	25,000	816	A	0.033	-0.087	NO		
32. Encilia Ave from Mozart Way to Shubert St	City of Moreno Valley	D	2UR	2,000	240	A	0.120	4U	25,000	1,650	A	0.066	-0.054	NO		
33. Encilia Ave Shubert St to Redlands Blvd	City of Moreno Valley	D	2UR	2,000	524	A	0.262	4U	25,000	3,083	A	0.123	-0.138	NO		
34. Alessandro Blvd from Lasselle St to Nason St	City of Moreno Valley	D	2U	12,500	18,164	F *	1.453	2U	12,500	18,452	F *	1.476	0.023	NO		
35. Alessandro Blvd from Nason St to Moreno Beach Dr	City of Moreno Valley	D	2U	12,500	17,498	F *	1.400	2U	12,500	18,016	F *	1.441	0.041	NO		
36. Alessandro Blvd from Moreno Beach Dr to Redlands Blvd	City of Moreno Valley	D	2U	12,500	7,674	B	0.614	2U	12,500	8,594	B	0.688	0.074	NO		

Notes: LOS = Level of Service, 2MA = 2-Lane Mountain Arterial, 2U = 2-Lane Undivided, 4U = 4-Lane Undivided, 6D = 6-Lane Divided, 4D = 4-Lane Divided, 2UR = 2-Lane Undivided Residential
Source: (Translutions, 2020b, Table G)

Table 4.12-17 General Plan Build-Out (2040) Intersection Analysis – Warehouse Distribution/Logistics

Intersection	LOS Standard	Jurisdiction	Control	Without Project				With Project				Change in Delay		Exceed City's Operational Requirement?
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour	PM Peak Hour	
				Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	Delay	
1. Moreno Beach Dr/SR-60 Westbound Ramps	D	Caltrans	Signal	2.8	A	0.2	A	2.8	A	0.1	A	-	-	-
2. Moreno Beach Dr/SR-60 Eastbound Ramps	D	Caltrans	Signal	15.1	B	27.6	C	16.4	B	33.4	C	-	-	-
3. Moreno Beach Dr/Eucalyptus Avenue	D	Moreno Valley	Signal	32.4	C	49.0	D	34.2	C	53.9	D	1.8	4.9	NO
4. Auto Mall Dr/Eucalyptus Avenue	D	Moreno Valley	TWSC	12.7	B	19.3	C	14.0	B	21.5	C	1.3	2.2	NO
5. Driveway 1/Eucalyptus Avenue	D	Moreno Valley	TWSC	11.5	B	A	A	13.1	B	14.8	C	1.6	14.8	NO
6. Driveway 2-Essen Ln/Encilia Avenue	D	Moreno Valley	TWSC	8.7	A	9.2	A	9.5	A	10.8	B	0.8	1.6	NO
7. Driveway 3/Encilia Avenue	D	Moreno Valley	TWSC	8.7	A	9.2	A	9.1	A	11.0	B	0.4	1.8	NO
8. Driveway 4-Shubert Street/Encilia Avenue	D	Moreno Valley	TWSC	8.6	A	9.2	A	9.2	A	10.3	B	0.6	1.1	NO
9. Driveway 5/Eucalyptus Avenue	D	Moreno Valley	TWSC					9.0	A	10.1	B	9.0	10.1	-
10. Redlands Boulevard/SR-60 Westbound Ramps	D	Caltrans	Signal	9.6	A	7.5	A	11.6	B	7.6	A	-	-	-
11. Redlands Boulevard/SR-60 Eastbound Ramps	D	Caltrans	Signal	14.7	B	20.7	C	16.3	B	16.9	B	-	-	NO
12. Redlands Boulevard/Eucalyptus Avenue	D	Moreno Valley	Roundabout	8.6	A	16.1	C	9.7	B	20.3	C	1.1	4.2	NO
13. Redlands Boulevard/Driveway 6	D	Moreno Valley	TWSC					11.6	B	13.3	B	11.6	13.3	NO
14. Redlands Boulevard/Driveway 7	D	Moreno Valley	TWSC					11.6	B	13.4	B	11.6	13.4	NO
15. Redlands Boulevard/Encilia Avenue	D	Moreno Valley	Signal	14.1	B	28.0	C	15.5	B	27.3	C	1.4	-0.7	NO

Notes: LOS – Level of Service
Source: (Translutions, 2020a, Table H)



Table 4.12-18 General Plan Build-Out (2040) Roadway Segment Analysis – Warehouse Distribution/Logistics

Roadway Segment	Jurisdiction	LOS Standard	Classification	Roadway Capacity	Without Project			With Project			Change in V/C	Exceed City's Operational Requirement?
					Daily Volume	LOS	V/C	Daily Volume	LOS	V/C		
1. Redlands Blvd from SR-60 WB Ramps to SR-60 EB Ramps	Caltrans	D	4D	37,500	25,690	B	0.685	26,609	C	0.710	0.025	NO
2. Redlands Blvd from SR-60 EB Ramps to Eucalyptus Ave	City of Moreno Valley	D	4D	37,500	26,068	B	0.695	27,793	C	0.741	0.046	NO
3. Redlands Blvd from Eucalyptus Ave to Driveway 6	City of Moreno Valley	D	4D	37,500	25,275	B	0.674	26,255	B	0.700	0.026	NO
4. Redlands Blvd from Driveway 6 to Driveway 7	City of Moreno Valley	D	4D	37,500	25,275	B	0.674	26,241	B	0.700	0.026	NO
5. Redlands Blvd from Driveway 7 to Encilia Ave	City of Moreno Valley	D	4D	37,500	25,275	B	0.674	25,914	B	0.691	0.017	NO
6. Moreno Beach Dr from SR-60 WB Ramps to SR-60 EB Ramps	Caltrans	D	6D	56,300	24,982	A	0.444	25,659	A	0.456	0.012	NO
7. Moreno Beach Dr from SR-60 EB Ramps to Eucalyptus Ave	City of Moreno Valley	D	6D	56,300	44,511	C	0.791	45,820	D	0.814	0.023	NO
8. Eucalyptus Ave from Moreno Beach Dr to Auto Mall Dr	City of Moreno Valley	D	4U	25,000	12,586	A	0.503	14,010	A	0.560	0.057	NO
9. Eucalyptus Ave from Auto Mall Dr to Driveway 1	City of Moreno Valley	D	4U	25,000	8,251	A	0.330	9,733	A	0.389	0.059	NO
10. Eucalyptus Ave from Driveway 1 to Aldi Pl	City of Moreno Valley	D	4U	25,000	7,912	A	0.316	9,335	A	0.373	0.057	NO
11. Eucalyptus Ave Aldi Pl to Driveway 5	City of Moreno Valley	D	4U	25,000	9,978	A	0.399	11,401	A	0.456	0.057	NO
12. Eucalyptus Ave from Driveway 5 to Redlands Blvd	City of Moreno Valley	D	4U	25,000	9,978	A	0.399	11,512	A	0.460	0.061	NO
13. Encilia Ave from Essen Ln to Mozart Way	City of Moreno Valley	D	4U	25,000	3,996	A	0.160	4,140	A	0.166	0.006	NO
14. Encilia Ave from Mozart Way to Shubert St	City of Moreno Valley	D	4U	25,000	3,996	A	0.160	4,348	A	0.174	0.014	NO
15. Encilia Ave Shubert St to Redlands Blvd	City of Moreno Valley	D	4U	25,000	4,312	A	0.172	4,951	A	0.198	0.026	NO

Notes: LOS = Level of Service, 2MA = 2-Lane Mountain Arterial, 2U = 2-Lane Undivided, 4U = 4-Lane Undivided, 6D = 6-Lane Divided, 4D = 4-Lane Divided, 2UR = 2-Lane Undivided Residential
Source: (Translutions, 2020a, Table I)

Table 4.12-19 General Plan Build-Out (2040) Intersection Analysis – Fulfillment/E-Commerce

Intersection	LOS Standard	Jurisdiction	Control	Without Project				With Project				Change in Delay		City's Operational Requirement?
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour	PM Peak Hour	
				Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	Delay	
1. Kitching St/Iris Ave	C	Moreno Valley	Signal	95.4	F *	>100	F *	99.0	F *	>100	F *	3.6	0.6	NO
2. Lasselle St/Alessandro Blvd	D	Moreno Valley	Signal	39.6	D	39.5	D	39.7	D	39.6	D	0.1	0.1	NO
3. Lasselle St/Iris Ave	D	Moreno Valley	Signal	49.4	D	63.5	E *	49.8	D	64.6	E *	0.4	1.1	NO
4. Nason St/Eucalyptus Ave	D	Moreno Valley	Signal	58.4	E *	57.5	E *	58.4	E *	58.8	E *	0.0	1.3	NO
5. Nason St/Alessandro Blvd	D	Moreno Valley	Signal	44.8	D	40.6	D	44.8	D	40.7	D	0.0	0.1	NO
6. Nason St/Iris Ave	C	Moreno Valley	Signal	35.4	D *	63.5	E *	35.6	D *	63.9	E *	0.2	0.4	NO
7. Fir Ave/Eucalyptus Ave	D	Moreno Valley	Signal	32.6	C	34.1	C	32.8	C	34.4	C	0.2	0.3	NO
8. Oliver St/Iris Ave	D	Moreno Valley	Signal	34.0	C	32.2	C	34.2	C	32.4	C	0.2	0.2	NO
9. Moreno Beach Dr/SR-60 WB Ramps	D	Caltrans	Signal	2.8	A	0.2	A	2.8	A	0.1	A	-	-	-
10. Moreno Beach Dr/SR-60 EB Ramps	D	Caltrans	Signal	15.1	B	27.6	C	16.3	B	36.4	D	-	-	-
11. Moreno Beach Dr/Eucalyptus Ave	D	Moreno Valley	Signal	32.4	C	49.0	D	34.8	C	60.8	E *	2.4	11.8	YES
12. Auto Mall Dr/Eucalyptus Ave	D	Moreno Valley	TWSC	12.7	B	19.3	C	14.7	B	28.9	D	2.0	9.6	NO
13. Moreno Beach Dr/Alessandro Blvd	D	Moreno Valley	Signal	36.8	D	37.9	D	36.8	D	38.4	D	0.0	0.5	NO
14. Moreno Beach Blvd/Cactus Ave	C	Moreno Valley	Signal	29.6	C	28.5	C	29.7	C	28.7	C	0.1	0.2	NO
15. Moreno Beach Dr/John F Kennedy Dr	D	Moreno Valley	Signal	35.7	D	30.0	C	35.8	D	30.4	C	0.1	0.4	NO
16. Alessandro Rd/San Timoteo Canyon Rd	C	Redlands	AWSC	>100	F *	>100	F *	>100	F *	>100	F *	-	-	-
17. Live Oak Canyon Rd/San Timoteo Canyon Rd	C	Riverside County	AWSC	>100	F *	>100	F *	>100	F *	>100	F *	-	-	-
18. Redlands Blvd/San Timoteo Canyon Rd	C	Riverside County	AWSC	>100	F *	>100	F *	>100	F *	>100	F *	-	-	-
19. Dwy 1/Eucalyptus Ave	D	Moreno Valley	TWSC	11.5	B	A	A	13.4	B	22.2	C	1.9	22.2	NO
20. Dwy 2-Essen Ln/Encilia Ave	D	Moreno Valley	TWSC	8.7	A	9.2	A	9.5	A	11.6	B	0.8	2.4	NO
21. Dwy 3/Encilia Ave	D	Moreno Valley	TWSC	8.7	A	9.2	A	9.5	A	12.0	B	0.8	2.8	NO
22. Dwy 4-Shubert St/Encilia Ave	D	Moreno Valley	TWSC	8.6	A	9.2	A	9.6	A	13.1	B	1.0	3.9	NO
23. Dwy 5/Eucalyptus Ave	D	Moreno Valley	TWSC					9.2	A	10.4	B	9.2	10.4	NO
24. Redlands Blvd/Ironwood Ave	D	Moreno Valley	Signal	25.9	C	32.2	C	26.1	C	24.7	C	0.2	-7.5	NO
25. Redlands Blvd/SR-60 WB Ramps	D	Caltrans	Signal	9.6	A	7.5	A	11.6	B	8.0	A	-	-	-
26. Redlands Blvd/SR-60 EB Ramps	D	Caltrans	Signal	14.7	B	20.7	C	15.6	B	14.7	B	-	-	-
27. Redlands Blvd/Eucalyptus Ave	D	Moreno Valley	Roundabout	8.6	A	16.1	C	10.2	B	42.8	E *	1.6	26.7	YES
28. Redlands Blvd/Dwy 6	D	Moreno Valley	TWSC					12.1	B	16.0	C	12.1	16.0	NO
29. Redlands Blvd/Dwy 7	D	Moreno Valley	TWSC					11.9	B	15.9	C	11.9	15.9	NO
30. Redlands Blvd/Encilia Ave	D	Moreno Valley	Signal	14.1	B	28.0	C	17.8	B	40.3	D	3.7	12.3	NO
31. Redlands Blvd/Cottonwood Ave	C	Moreno Valley	Signal	4.3	A	8.4	A	4.3	A	8.5	A	0.0	0.1	NO
32. Redlands Blvd/Alessandro Blvd	C	Moreno Valley	Signal	28.9	C	28.0	C	29.0	C	28.9	C	0.1	0.9	NO
33. Redlands Blvd/John F Kennedy Dr/Cactus Ave	C	Moreno Valley	Signal	28.7	C	24.9	C	28.7	C	24.9	C	0.0	0.0	NO
34. WLC Parkway/Eucalyptus Ave	D	Moreno Valley	Signal	26.0	C	49.2	D	26.6	C	51.4	D	0.6	2.2	NO

Notes: * Exceeds LOS Standard
TWSC = Two-Way Stop Control; For TWSC intersections, reported delay is for worst-case approach/movement.
LOS = Level of Service
Source: (Translutions, 2020b, Table H)



Table 4.12-20 General Plan Build-Out (2040) Roadway Segment Analysis – Fulfillment/E-Commerce

Roadway Segment	Jurisdiction	LOS Standard	Classification	Roadway Capacity	Without Project			With Project			Change in V/C	Exceed City's Operational Requirement?
					Daily Volume	LOS	V/C	Daily Volume	LOS	V/C		
1 . San Timoteo Canyon Rd from Alessandro Rd to Live Oak Canyon Rd	City of Redlands/Riverside County	C	2MA	16,100	21,100	F *	1.311	21,502	F *	-	-	-
2 . San Timoteo Canyon Rd from Live Oak Canyon Rd to Redlands Blvd	Riverside County	C	2MA	16,100	24,137	F *	1.499	24,597	F *	-	-	-
3 . Redlands Blvd south of San Timoteo Canyon Rd	Riverside County	C	2MA	16,100	25,853	F *	1.606	26,313	F *	-	-	-
4 . Redlands Blvd north of Ironwood Ave	City of Moreno Valley	C	4D	37,500	23,883	B	0.637	24,343	B	0.649	0.012	NO
5 . Redlands Blvd from Ironwood Ave to SR-60 WB Ramps	City of Moreno Valley	D	4D	37,500	22,667	B	0.604	23,127	B	0.617	0.012	NO
6 . Redlands Blvd from SR-60 WB Ramps to SR-60 EB Ramps	Caltrans	D	4D	37,500	25,690	B	0.685	27,342	C	-	-	-
7 . Redlands Blvd from SR-60 EB Ramps to Eucalyptus Ave	City of Moreno Valley	D	4D	37,500	26,068	B	0.695	28,914	C	0.771	0.076	NO
8 . Redlands Blvd from Eucalyptus Ave to Driveway 6	City of Moreno Valley	D	4D	37,500	25,275	B	0.674	28,187	C	0.752	0.078	NO
9 . Redlands Blvd from Driveway 6 to Driveway 7	City of Moreno Valley	D	4D	37,500	25,275	B	0.674	28,129	C	0.750	0.076	NO
10 . Redlands Blvd from Driveway 7 to Encilia Ave	City of Moreno Valley	D	4D	37,500	25,275	B	0.674	27,834	C	0.742	0.068	NO
11 . Redlands Blvd from Encilia Ave to Cottonwood Ave	City of Moreno Valley	C	4D	37,500	16,675	A	0.445	18,171	A	0.485	0.040	NO
12 . Redlands Blvd from Cottonwood Ave to Alessandro Blvd	City of Moreno Valley	C	4D	37,500	15,667	A	0.418	17,047	A	0.455	0.037	NO
13 . Redlands Blvd from Alessandro Blvd to Cactus Ave	City of Moreno Valley	C	4D	37,500	10,706	A	0.285	11,052	A	0.295	0.009	NO
14 . JFK Dr from Cactus Ave to Moreno Beach Dr	City of Moreno Valley	C	4U	25,000	12,915	A	0.517	13,145	A	0.526	0.009	NO
15 . Moreno Beach Dr from SR-60 WB Ramps to SR-60 EB Ramps	Caltrans	D	6D	56,300	24,982	A	0.444	26,333	A	-	-	-
16 . Moreno Beach Dr from SR-60 EB Ramps to Eucalyptus Ave	City of Moreno Valley	D	6D	56,300	44,511	C	0.791	47,041	D	0.836	0.045	NO
17 . Moreno Beach Dr from Alessandro Blvd to Cactus Ave	City of Moreno Valley	D	6D	56,300	32,569	A	0.578	32,971	A	0.586	0.007	NO
18 . Moreno Beach Dr from Cactus Ave to JFK Dr	City of Moreno Valley	C	6D	56,300	25,486	A	0.453	25,888	A	0.460	0.007	NO
19 . Moreno Beach Dr from JFK Dr to Oliver St	City of Moreno Valley	D	6D	56,300	33,716	A	0.599	34,348	B	0.610	0.011	NO
20 . Iris Ave From Nason St to Oliver St	City of Moreno Valley	D	6D	56,300	45,638	D	0.811	46,156	D	0.820	0.009	NO
21 . Iris Ave From Lasselle St to Nason St	City of Moreno Valley	D	6D	56,300	61,514	F *	1.093	62,032	F *	1.102	0.009	NO
22 . Iris Ave From Kitching St to Lasselle St	City of Moreno Valley	D	6D	56,300	50,410	D	0.895	50,698	E *	0.900	0.005	NO
23 . Eucalyptus Ave from Nason St to Fir Ave	City of Moreno Valley	D	4U	25,000	26,165	F *	1.047	26,453	F *	1.058	0.012	NO
24 . Eucalyptus Ave from Fir Ave to Moreno Beach Dr	City of Moreno Valley	D	4D	37,500	28,783	C	0.768	29,071	C	0.775	0.008	NO
25 . Eucalyptus Ave from Moreno Beach Dr to Auto Mall Dr	City of Moreno Valley	D	4U	25,000	12,586	A	0.503	15,576	B	0.623	0.120	NO
26 . Eucalyptus Ave from Auto Mall Dr to Driveway 1	City of Moreno Valley	D	4U	25,000	8,251	A	0.330	11,471	A	0.459	0.129	NO
27 . Eucalyptus Ave from Driveway 1 to Aldi Pl	City of Moreno Valley	D	4U	25,000	7,912	A	0.316	10,901	A	0.436	0.120	NO
28 . Eucalyptus Ave Aldi Pl to Driveway 5	City of Moreno Valley	D	4U	25,000	9,978	A	0.399	12,967	A	0.519	0.120	NO
29 . Eucalyptus Ave from Driveway 5 to Redlands Blvd	City of Moreno Valley	D	4U	25,000	9,978	A	0.399	13,077	A	0.523	0.124	NO
30 . Eucalyptus Ave from Redlands Blvd to World Logistics Center Driveway	City of Moreno Valley	D	4U	25,000	19,426	C	0.777	19,714	C	0.789	0.012	NO
31 . Encilia Ave from Essen Ln to Mozart Way	City of Moreno Valley	D	4U	25,000	3,996	A	0.160	4,572	A	0.183	0.023	NO
32 . Encilia Ave from Mozart Way to Shubert St	City of Moreno Valley	D	4U	25,000	3,996	A	0.160	5,406	A	0.216	0.056	NO
33 . Encilia Ave Shubert St to Redlands Blvd	City of Moreno Valley	D	4U	25,000	4,312	A	0.172	6,871	A	0.275	0.102	NO
34 . Alessandro Blvd from Lasselle St to Nason St	City of Moreno Valley	D	6D	56,300	36,212	B	0.643	36,500	B	0.648	0.005	NO
35 . Alessandro Blvd from Nason St to Moreno Beach Dr	City of Moreno Valley	D	4D	37,500	26,984	C	0.720	27,502	C	0.733	0.014	NO
36 . Alessandro Blvd from Moreno Beach Dr to Redlands Blvd	City of Moreno Valley	D	4D	37,500	27,143	C	0.724	28,063	C	0.748	0.025	NO

Notes: LOS = Level of Service, 2MA = 2-Lane Mountain Arterial, 2U = 2-Lane Undivided, 4U = 4-Lane Undivided, 6D = 6-Lane Divided, 4D = 4-Lane Divided, 2UR = 2-Lane Undivided Residential
Source: (Translutions, 2020b, Table I)

Table 4.12-21 Project VMT Analysis – Warehouse Distribution/Logistics

	Total Homebased Work VMT	Total Employment	VMT/Employee
Year 2012			
Project	11,304	1,000	11.30
City of Moreno Valley			11.00
Year 2040			
Project	12,349	1,000	12.35
City of Moreno Valley			12.43
Year 2020			
Project	11,603	1,000	11.60
City of Moreno Valley			11.41
Project as a Percentage of City			101.69%

Source: (Translutions, 2020a, Table S)



Table 4.12-22 Project VMT Analysis– Fulfillment/E-Commerce

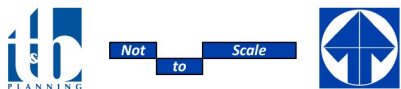
	Total Homebased Work VMT	Total Employment	VMT/Employee
Year 2012			
Project	23,359	2,000	11.68
City of Moreno Valley			11.00
Year 2040			
Project	24,770	2,000	12.38
City of Moreno Valley			12.43
Year 2020			
Project	23,762	2,000	11.88
City of Moreno Valley			11.41
Project as a Percentage of City			104.13%

Source: (Translutions, 2020b, Table X)

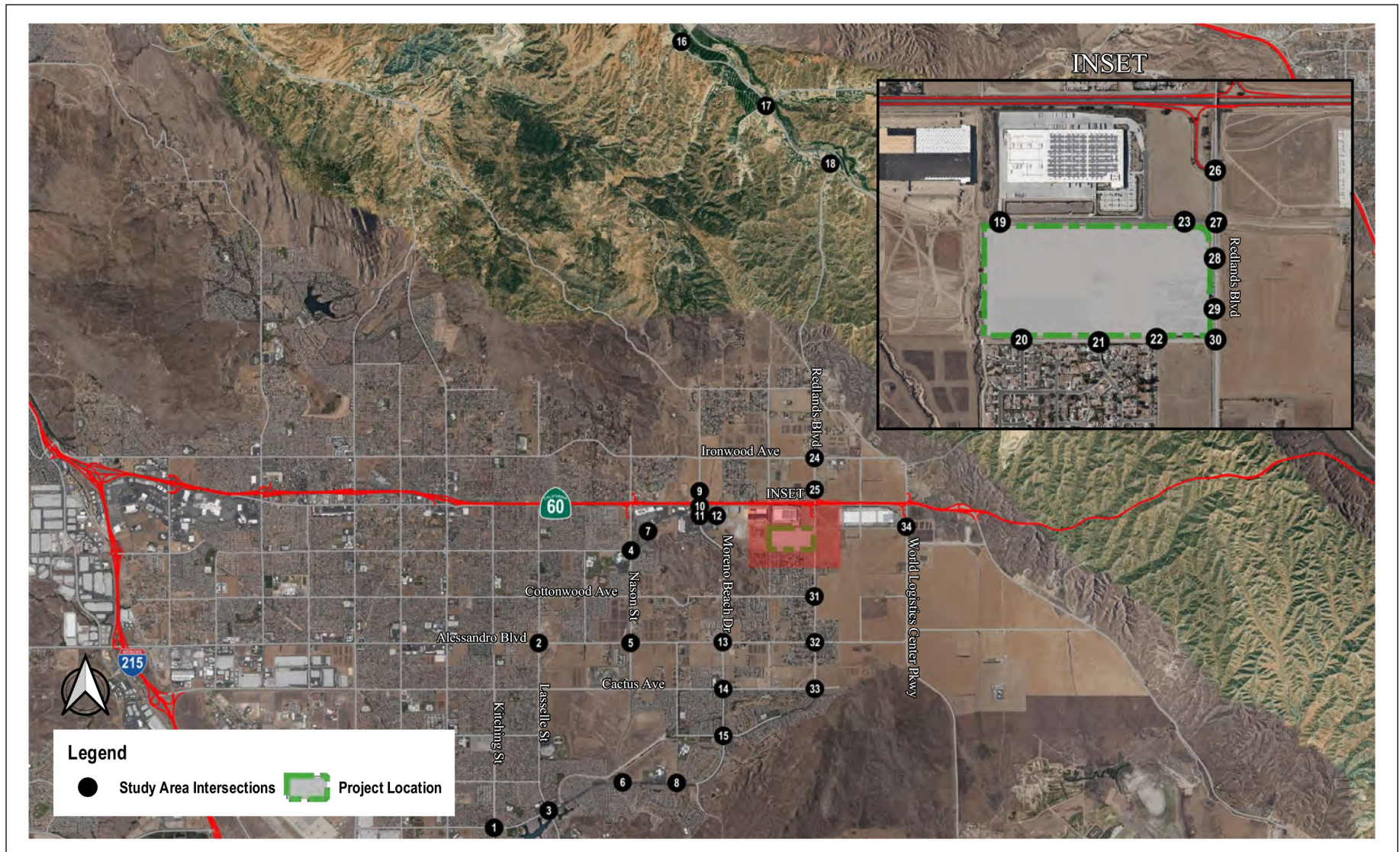


Source(s): translutions, inc. (11-05-2020)

Figure 4.12-1

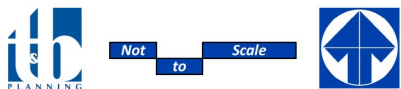


Study Area Intersection Locations – Warehouse Distribution/Logistics



Source(s): translutions, inc. (11-05-2020)

Figure 4.12-2

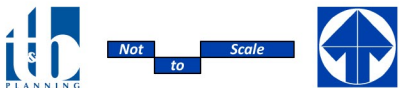


Study Area Intersection Locations – Fulfillment/E-Commerce

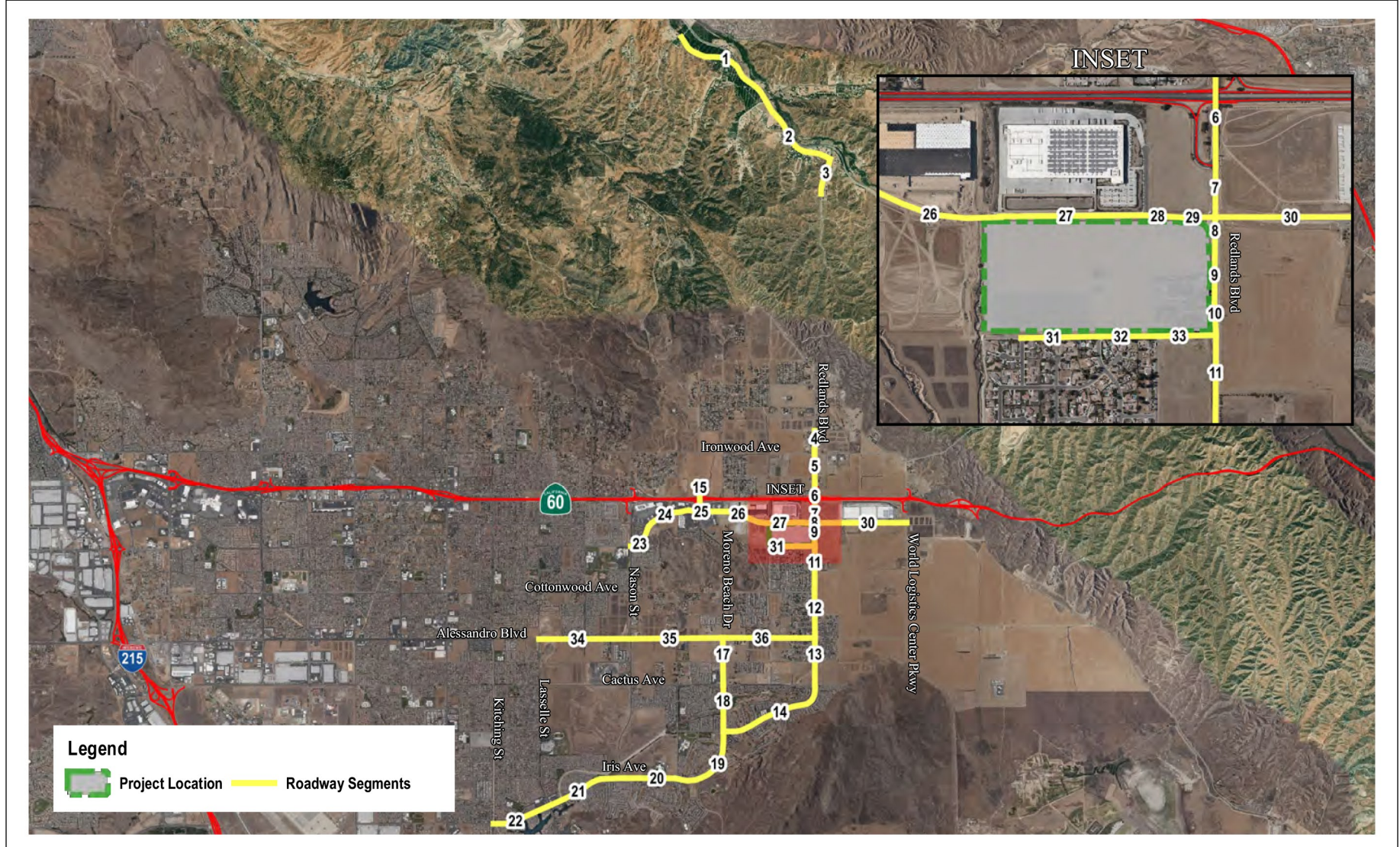


Source(s): translutions, inc. (11-05-2020)

Figure 4.12-3

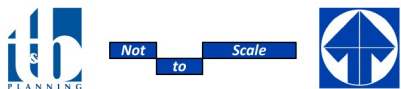


Study Area Roadway Segment Location – Warehouse Distribution/Logistics



Source(s): translutions, inc. (11-05-2020)

Figure 4.12-4



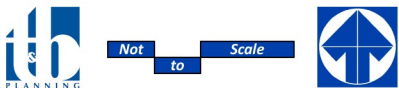
Study Area Roadway Segment Location – Fulfillment/E-Commerce



<table border="1"> <tr> <td>214/237 ← 8136 → 84/52 ↑ 4/8 ↓ 208247 3530442</td> <td>265521 ← 138 → 44/65 2/2 400/525 514624 121168</td> <td>151/241 ← 389/549 → 136/55 37/125 33/57 20/33 94/114 409329 17/5</td> <td>416 ← 1/5 → 2/1 72/95 11/12 10/12 79/66 39/27 26/57 2/5 11/6</td> </tr> <tr> <td>1 Moreno Beach Dr/SR-60 WB Ramps</td> <td>2 Moreno Beach Dr/SR-60 EB Ramps</td> <td>3 Moreno Beach Dr/Eucalyptus Ave</td> <td>4 Auto Mall Dr/Eucalyptus Ave</td> </tr> </table>	214/237 ← 8136 → 84/52 ↑ 4/8 ↓ 208247 3530442	265521 ← 138 → 44/65 2/2 400/525 514624 121168	151/241 ← 389/549 → 136/55 37/125 33/57 20/33 94/114 409329 17/5	416 ← 1/5 → 2/1 72/95 11/12 10/12 79/66 39/27 26/57 2/5 11/6	1 Moreno Beach Dr/SR-60 WB Ramps	2 Moreno Beach Dr/SR-60 EB Ramps	3 Moreno Beach Dr/Eucalyptus Ave	4 Auto Mall Dr/Eucalyptus Ave	<table border="1"> <tr> <td>20 ← 54/57 → 2/0 35/40</td> <td>2/1 ← 4/11 → 1/0 2/0 1/0 5/5</td> <td>5/12 ← 0/5 → 6/3 1/0 15/3</td> <td>5/18 ← 1/3 → 216 5/2</td> </tr> <tr> <td>5 Dwy 1/Eucalyptus Ave</td> <td>6 Dwy 2-Essen Ln/Encilia Ave</td> <td>7 Dwy 3/Encilia Ave</td> <td>8 Dwy 4-Shubert St/Encilia Ave</td> </tr> </table>	20 ← 54/57 → 2/0 35/40	2/1 ← 4/11 → 1/0 2/0 1/0 5/5	5/12 ← 0/5 → 6/3 1/0 15/3	5/18 ← 1/3 → 216 5/2	5 Dwy 1/Eucalyptus Ave	6 Dwy 2-Essen Ln/Encilia Ave	7 Dwy 3/Encilia Ave	8 Dwy 4-Shubert St/Encilia Ave	<table border="1"> <tr> <td><i>Future Intersection</i></td> <td>20 ← 332/429 → 356/379 31/20 38/23 1/6 5/3 399/682 155/68</td> <td>34/37 ← 338/416 → 131/403 81/136 68/70 428/380</td> <td>71/42 ← 349/510 → 16/24 43/34 12/22 13/13 438/381</td> </tr> <tr> <td>9 Dwy 5/Eucalyptus Ave</td> <td>10 Redlands Blvd/SR-60 WB Ramps</td> <td>11 Redlands Blvd/SR-60 EB Ramps</td> <td>12 Redlands Blvd/Eucalyptus Ave</td> </tr> </table>	<i>Future Intersection</i>	20 ← 332/429 → 356/379 31/20 38/23 1/6 5/3 399/682 155/68	34/37 ← 338/416 → 131/403 81/136 68/70 428/380	71/42 ← 349/510 → 16/24 43/34 12/22 13/13 438/381	9 Dwy 5/Eucalyptus Ave	10 Redlands Blvd/SR-60 WB Ramps	11 Redlands Blvd/SR-60 EB Ramps	12 Redlands Blvd/Eucalyptus Ave	<table border="1"> <tr> <td><i>Future Intersection</i></td> <td><i>Future Intersection</i></td> <td>5/17 ← 347/506 → 22/8 2/0 433/404</td> <td></td> </tr> <tr> <td>13 Redlands Blvd/Dwy 6</td> <td>14 Redlands Blvd/Dwy 7</td> <td>15 Redlands Blvd/Encilia Ave</td> <td></td> </tr> </table>	<i>Future Intersection</i>	<i>Future Intersection</i>	5/17 ← 347/506 → 22/8 2/0 433/404		13 Redlands Blvd/Dwy 6	14 Redlands Blvd/Dwy 7	15 Redlands Blvd/Encilia Ave	
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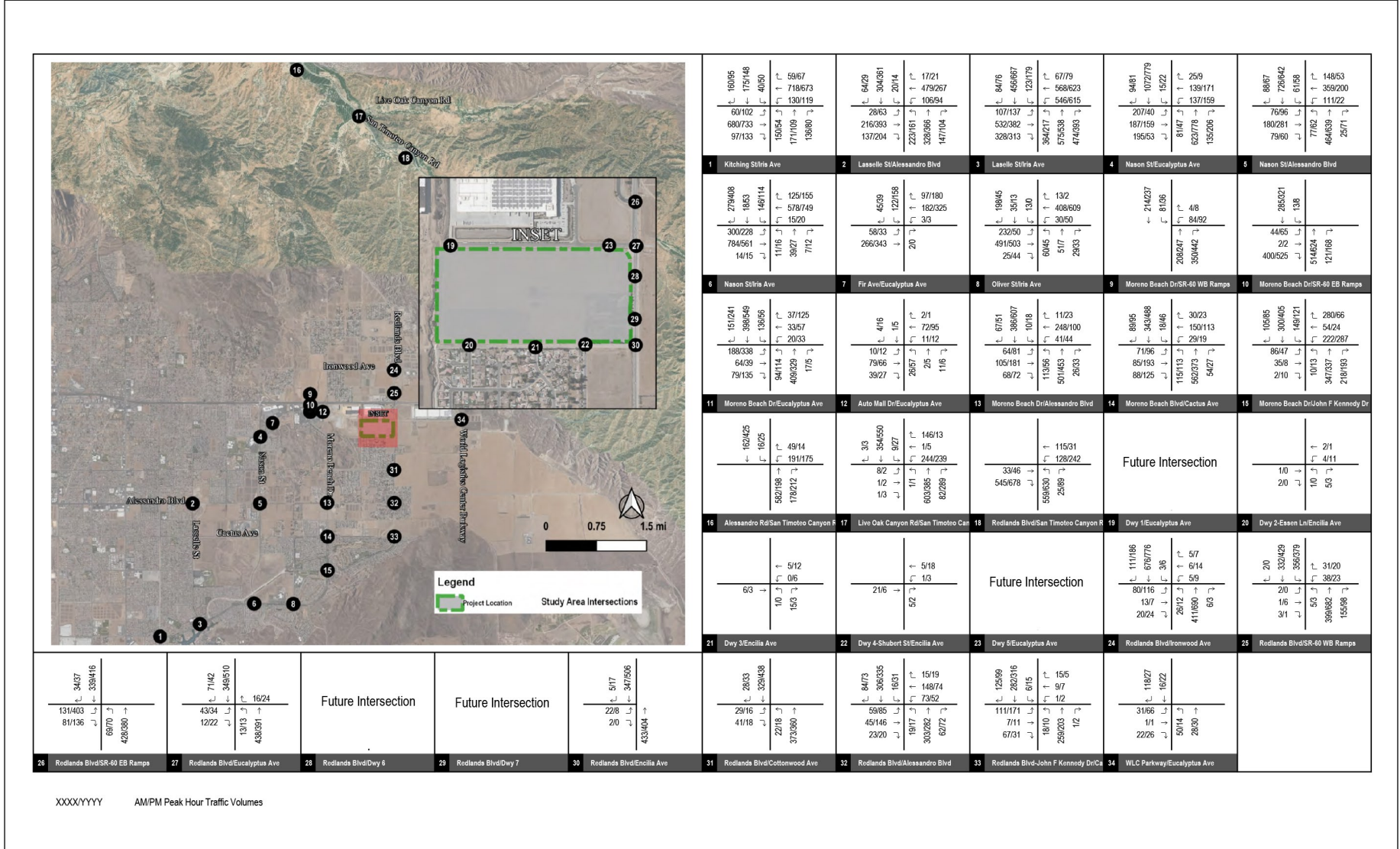
xxxx/yyyy AM/PM Peak Hour Traffic Volumes

Source(s): translutions, inc. (11-05-2020)



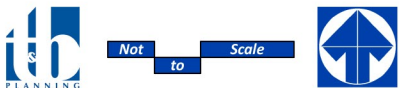
Existing Peak Hour Traffic Volumes (PCE) – Warehouse Distribution/Logistics

Figure 4.12-5

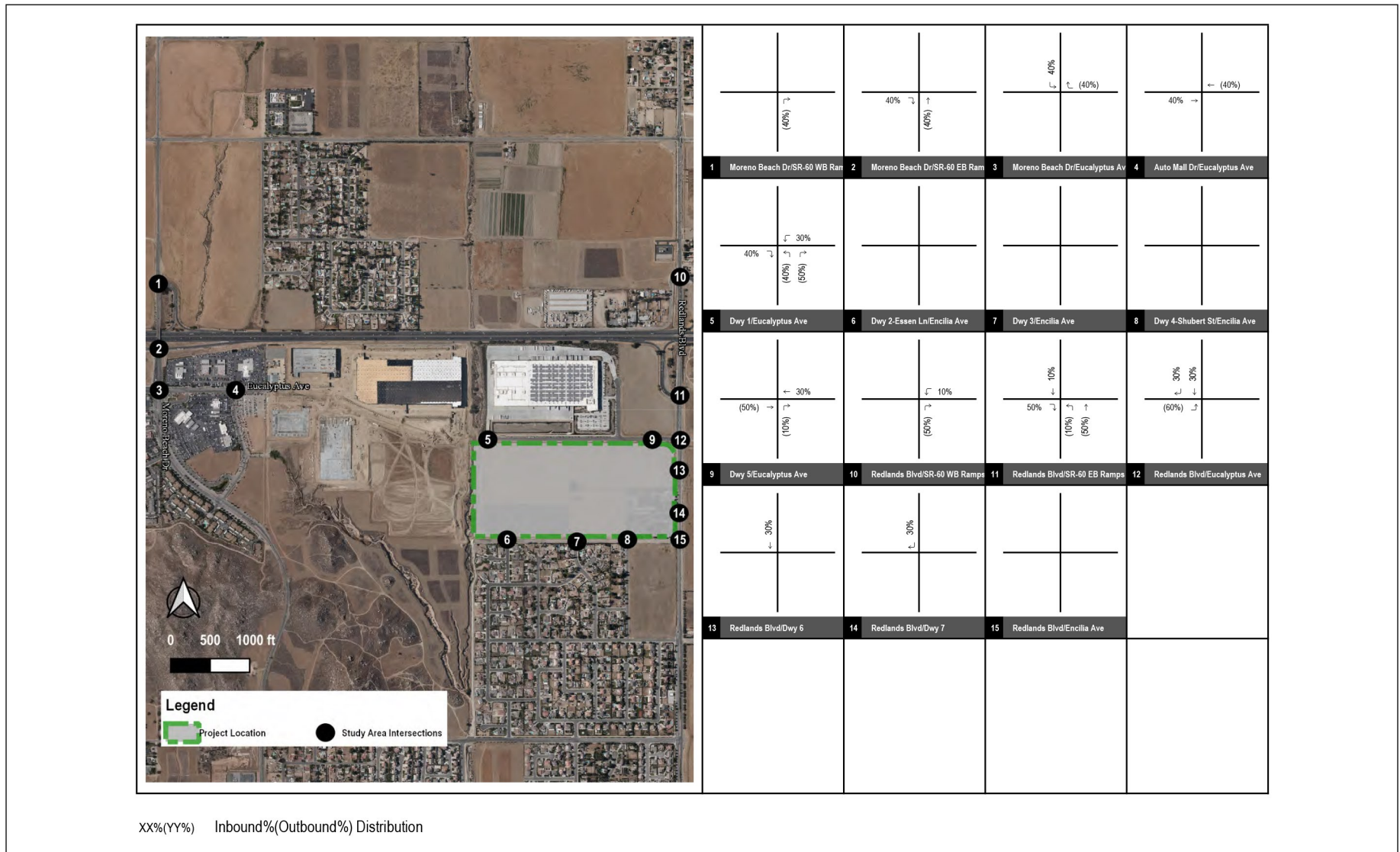


Source(s): translutions, inc. (11-05-2020)

Figure 4.12-6

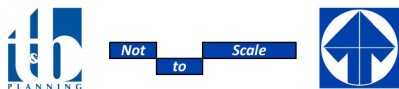


Existing Peak Hour Traffic Volumes (PCE) – Fulfillment/E-Commerce

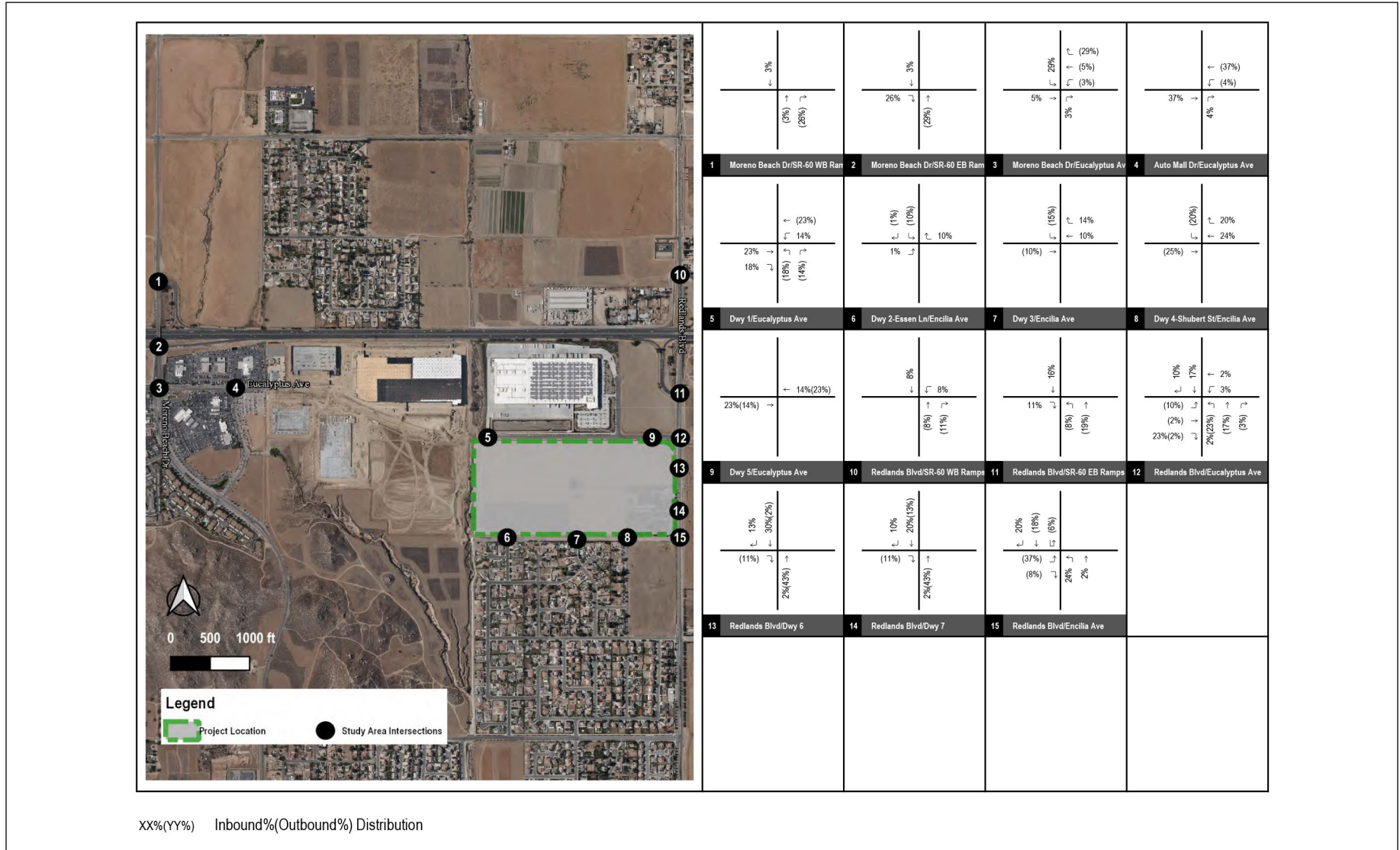


Source(s): translutions, inc. (11-05-2020)

Figure 4.12-7

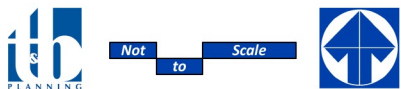


Project Truck Distribution – Warehouse Distribution/Logistics

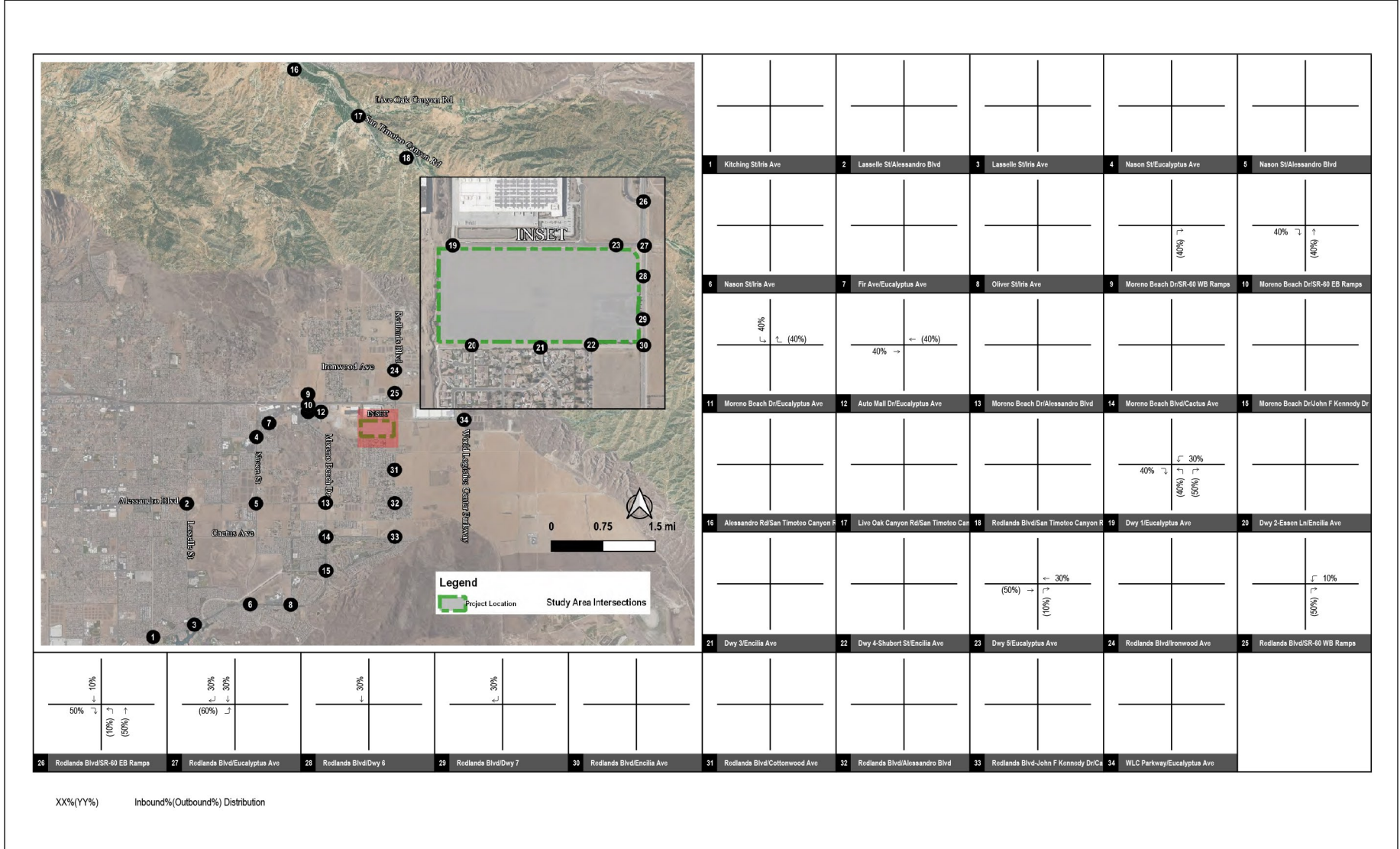


Source(s): translutions, inc. (11-05-2020)

Figure 4.12-8

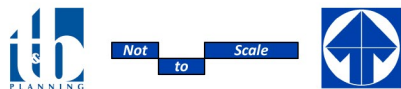


Project Passenger Car Trip Distribution – Warehouse Distribution/Logistics

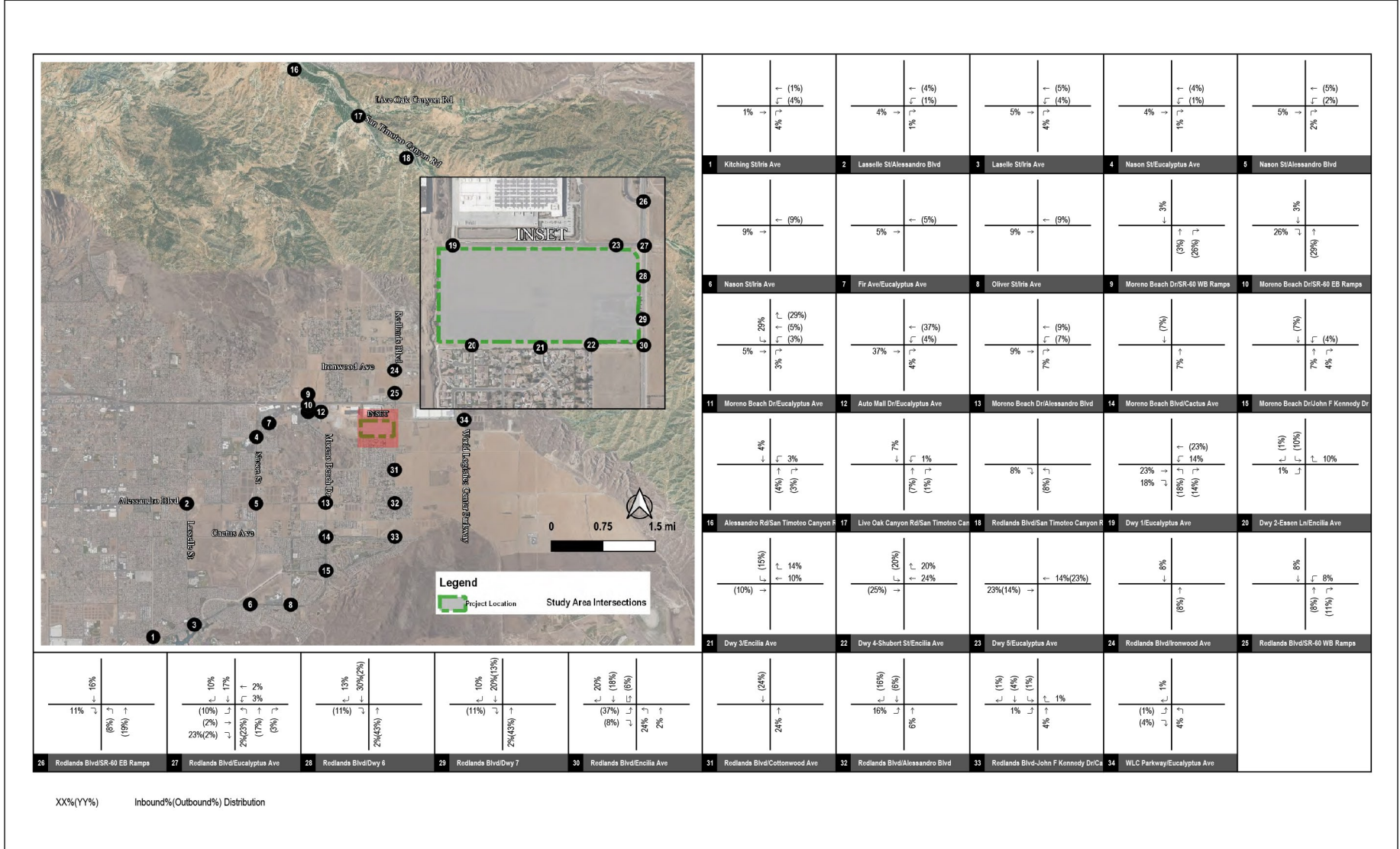


Source(s): translations, inc. (11-05-2020)

Figure 4.12-9

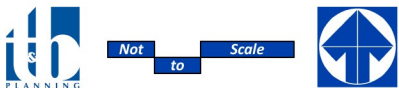


Project Truck Trip Distribution – Fulfillment/E-Commerce

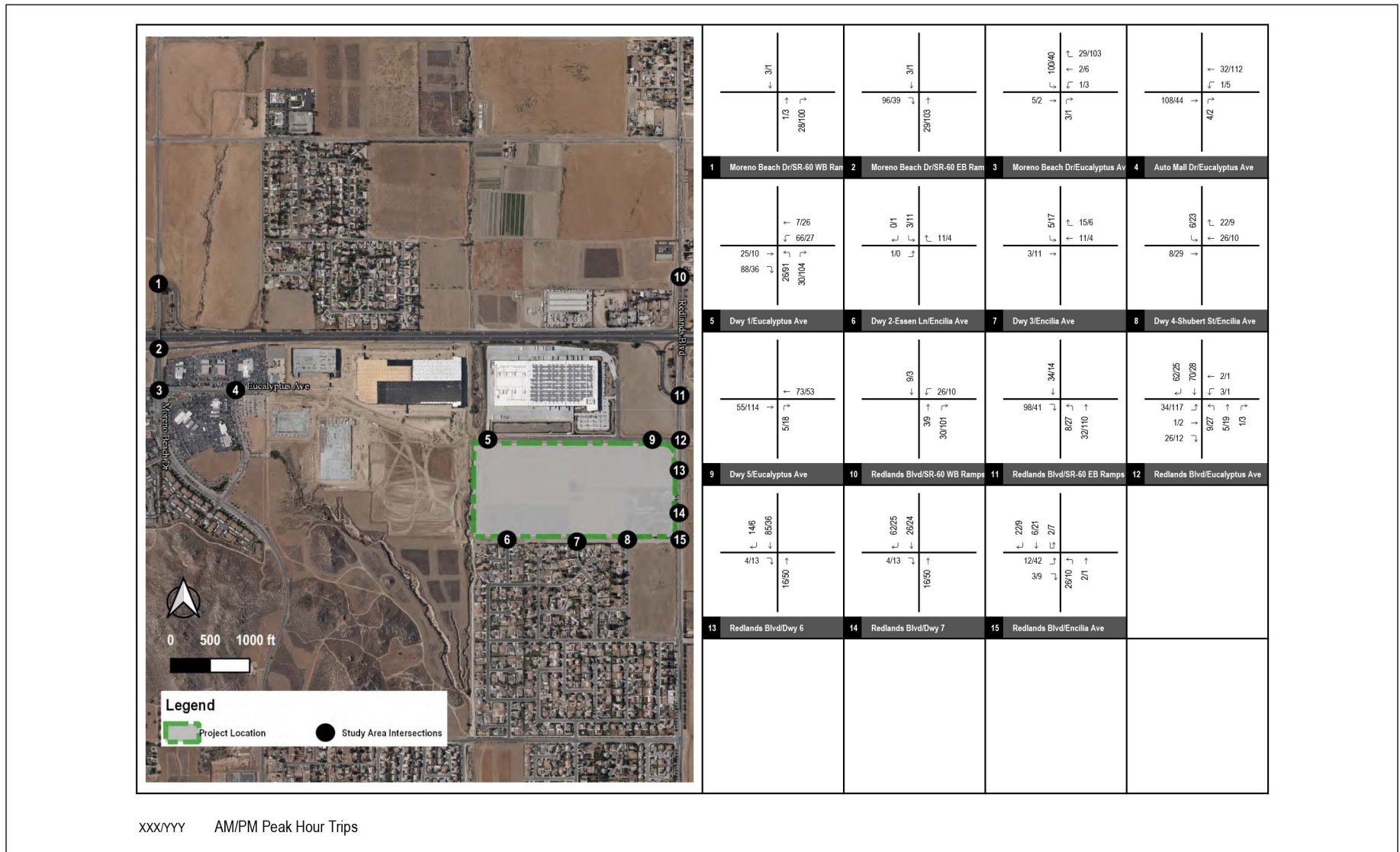


Source(s): translations, inc. (11-05-2020)

Figure 4.12-10

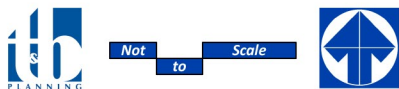


Project Passenger Car Trip Distribution – Fulfillment/E-Commerce

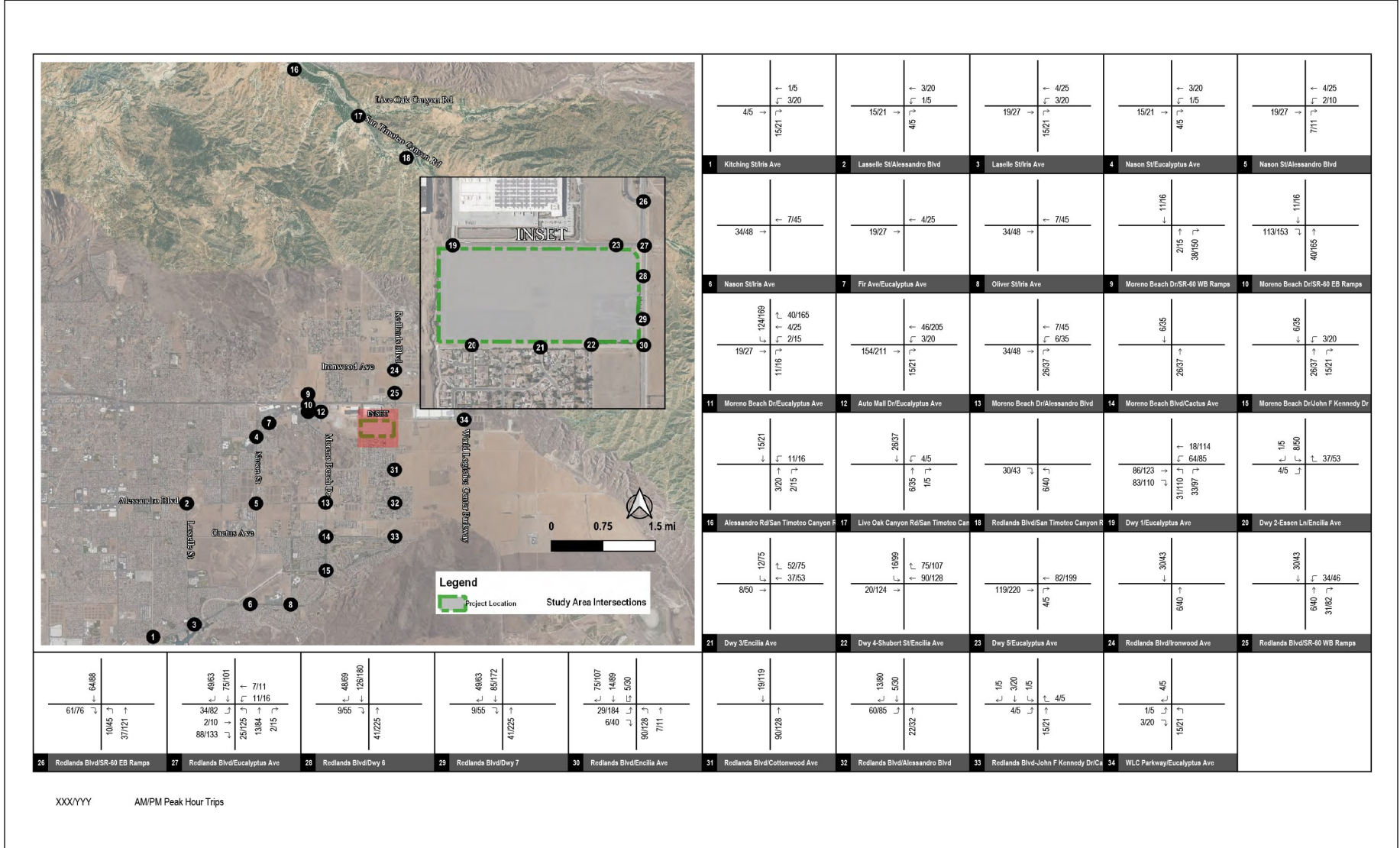


Source(s): translutions, inc. (11-05-2020)

Figure 4.12-11

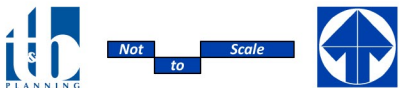


Project Trip Assignment (PCE) – Warehouse Distribution/Logistics

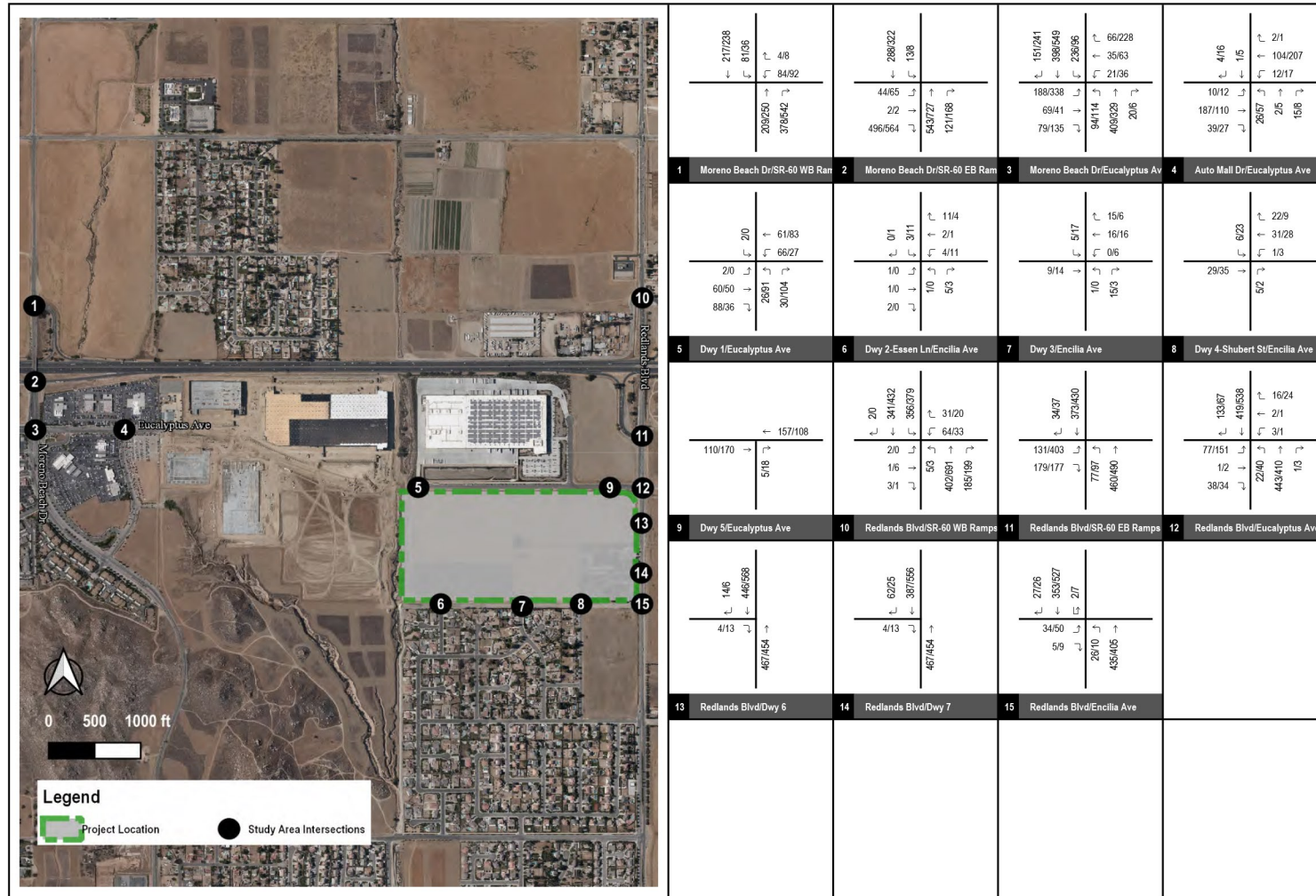


Source(s): translations, inc. (11-05-2020)

Figure 4.12-12



Project Trip Assignment (PCE) – Fulfillment/E-Commerce



xxxx/yyyy AM/PM Peak Hour Traffic Volumes

Source(s): translutions, inc. (11-05-2020)

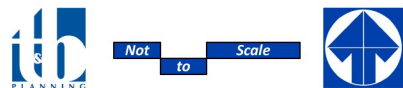
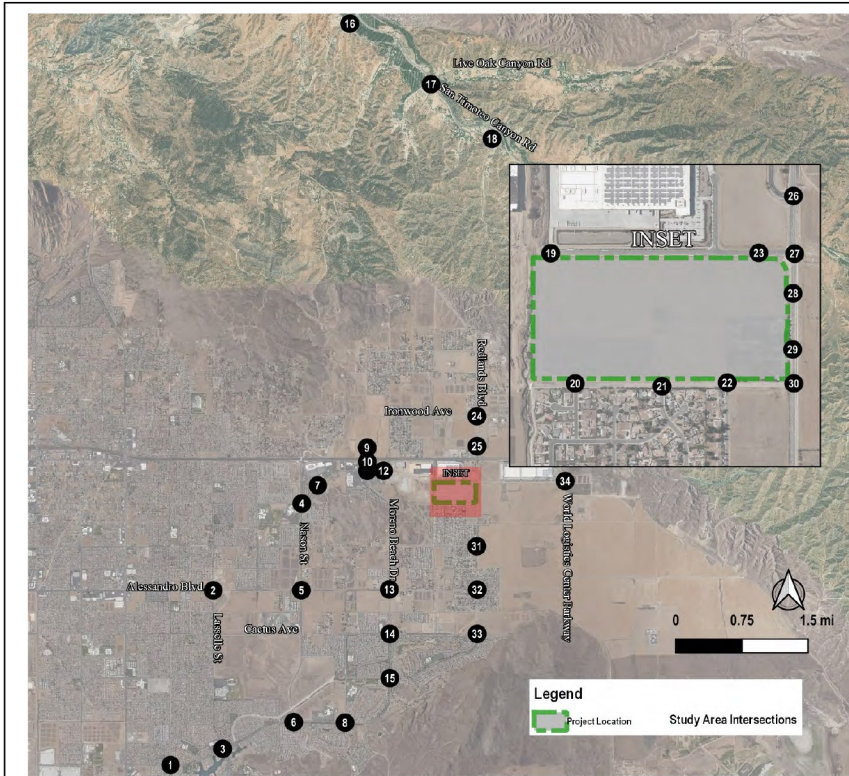


Figure 4.12-13
Existing plus Project Peak Hour Intersection Traffic Volumes –
Warehouse Distribution/Logistics



<table border="1"> <tr><td>3437</td><td>4035/4</td></tr> <tr><td>131403</td><td>79115</td></tr> <tr><td>142212</td><td>485501</td></tr> </table>	3437	4035/4	131403	79115	142212	485501	<table border="1"> <tr><td>120105</td><td>1624</td></tr> <tr><td>424511</td><td>711</td></tr> <tr><td>77116</td><td>1116</td></tr> <tr><td>38138</td><td>451475</td></tr> <tr><td>100155</td><td>215</td></tr> </table>	120105	1624	424511	711	77116	1116	38138	451475	100155	215	<table border="1"> <tr><td>48089</td><td>467712</td></tr> <tr><td>955</td><td>489628</td></tr> </table>	48089	467712	955	489628	<table border="1"> <tr><td>46953</td><td>467704</td></tr> <tr><td>955</td><td>489628</td></tr> </table>	46953	467704	955	489628	<table border="1"> <tr><td>80124</td><td>590</td></tr> <tr><td>351695</td><td>51192</td></tr> <tr><td>530</td><td>840</td></tr> <tr><td>90128</td><td>440415</td></tr> </table>	80124	590	351695	51192	530	840	90128	440415	<table border="1"> <tr><td>2833</td><td>348557</td></tr> <tr><td>2916</td><td>2218</td></tr> <tr><td>4118</td><td>483488</td></tr> </table>	2833	348557	2916	2218	4118	483488	<table border="1"> <tr><td>97153</td><td>1519</td></tr> <tr><td>311685</td><td>14874</td></tr> <tr><td>1831</td><td>7352</td></tr> <tr><td>1917</td><td>325314</td></tr> <tr><td>1917</td><td>6272</td></tr> </table>	97153	1519	311685	14874	1831	7352	1917	325314	1917	6272	<table border="1"> <tr><td>126104</td><td>1910</td></tr> <tr><td>285338</td><td>97</td></tr> <tr><td>720</td><td>12</td></tr> <tr><td>115176</td><td>214224</td></tr> <tr><td>1810</td><td>711</td></tr> <tr><td>6731</td><td>12</td></tr> </table>	126104	1910	285338	97	720	12	115176	214224	1810	711	6731	12	<table border="1"> <tr><td>12232</td><td>1622</td></tr> <tr><td>3271</td><td>6535</td></tr> <tr><td>11</td><td>2830</td></tr> <tr><td>2546</td><td></td></tr> </table>	12232	1622	3271	6535	11	2830	2546	
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XXXX/YYYY AM/PM Peak Hour Traffic Volumes

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Source(s): translutions, inc. (11-05-2020)

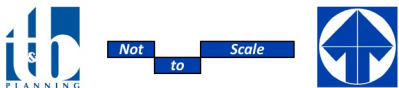
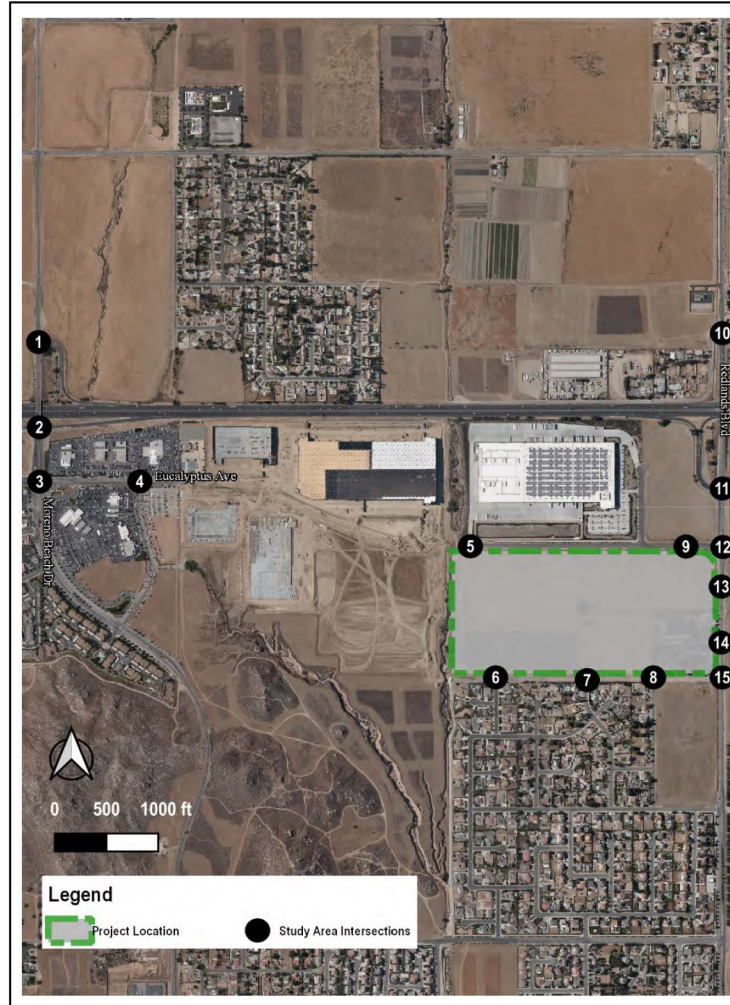


Figure 4.12-14
Existing plus Project Peak Hour Intersection Traffic Volumes –
Fulfillment/E-Commerce



<table border="1"> <tr><td>311/374</td><td></td></tr> <tr><td>116/68</td><td></td></tr> <tr><td>464/567</td><td>7/19</td></tr> <tr><td>527/719</td><td>211/249</td></tr> </table>	311/374		116/68		464/567	7/19	527/719	211/249	<table border="1"> <tr><td>463/535</td><td></td></tr> <tr><td>7866</td><td></td></tr> <tr><td>246/333</td><td></td></tr> <tr><td>118</td><td>738/954</td></tr> <tr><td>637/749</td><td>256/302</td></tr> </table>	463/535		7866		246/333		118	738/954	637/749	256/302	<table border="1"> <tr><td>176/279</td><td></td></tr> <tr><td>643/879</td><td></td></tr> <tr><td>283/311</td><td>88/274</td></tr> <tr><td>115/219</td><td>155/171</td></tr> <tr><td></td><td>662/596</td></tr> <tr><td></td><td>67/35</td></tr> </table>	176/279		643/879		283/311	88/274	115/219	155/171		662/596		67/35	<table border="1"> <tr><td>418</td><td>2/1</td></tr> <tr><td>16</td><td>122/229</td></tr> <tr><td>11/13</td><td>142/1</td></tr> <tr><td>206/130</td><td>35/80</td></tr> <tr><td>60/42</td><td>26</td></tr> <tr><td></td><td>19/10</td></tr> </table>	418	2/1	16	122/229	11/13	142/1	206/130	35/80	60/42	26		19/10
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Source(s): translutions, inc. (11-05-2020)

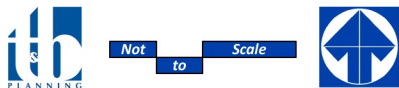
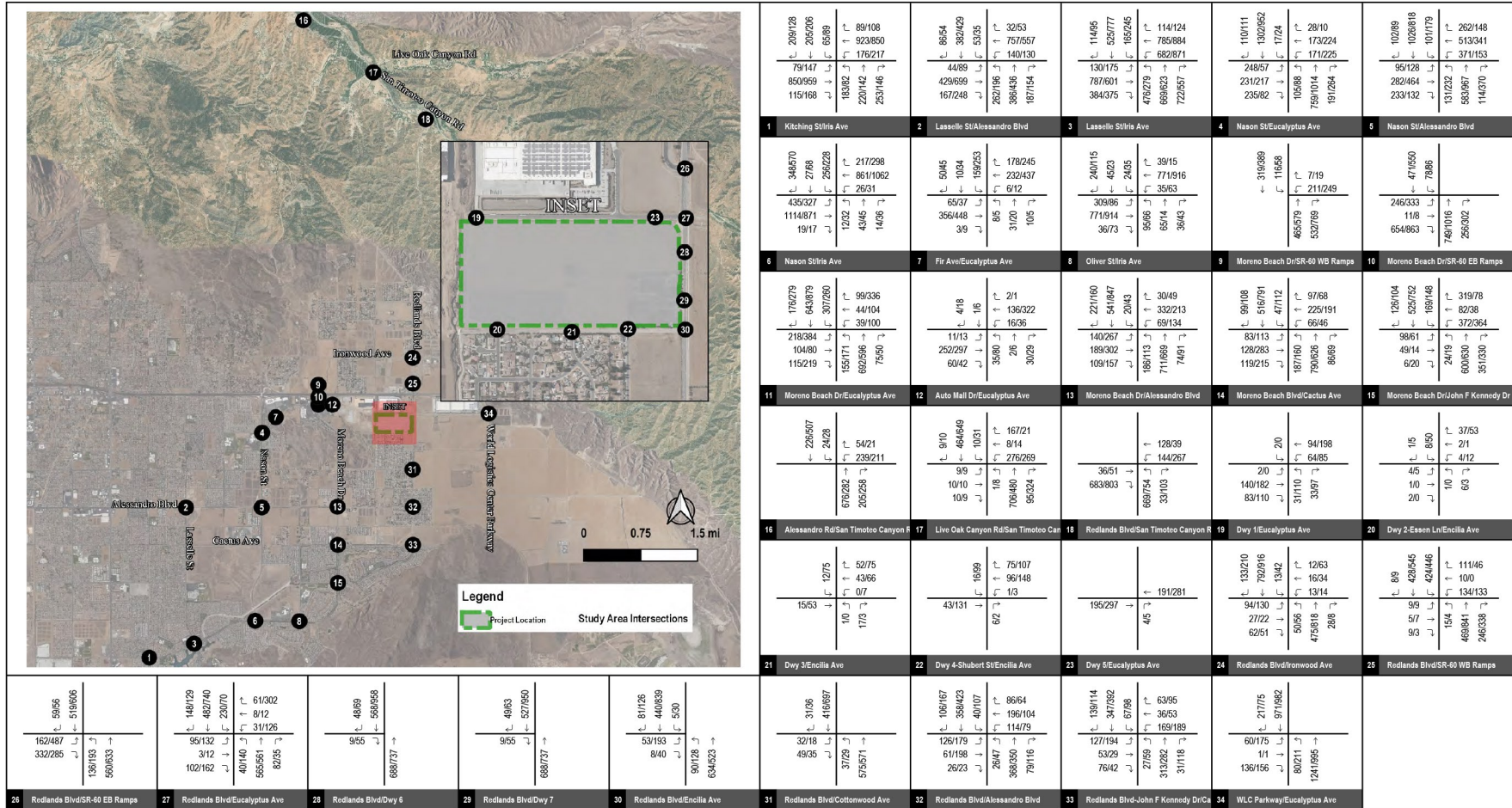


Figure 4.12-15
Opening Year (2024) Peak Hour Intersection Traffic Volumes –
Warehouse Distribution/Logistics



XXXX/YYYY AM/PM Peak Hour Traffic Volumes

Source(s): translations, inc. (11-05-2020)

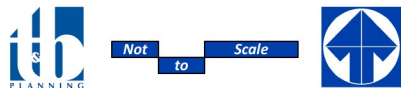
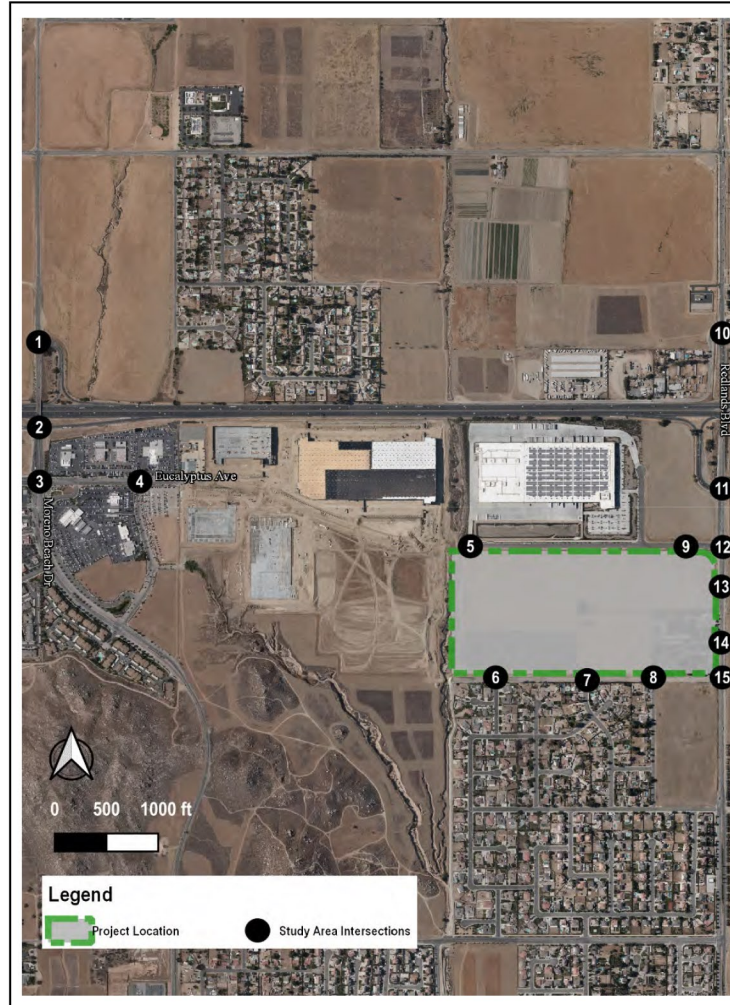


Figure 4.12-16
Opening Year (2024) Peak Hour Intersection Traffic Volumes –
Fulfillment/E-Commerce



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xxxx/yyyy AM/PM Peak Hour Traffic Volumes

Source(s): translutions, inc. (11-05-2020)

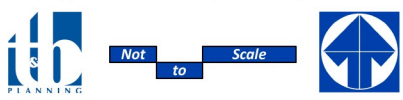
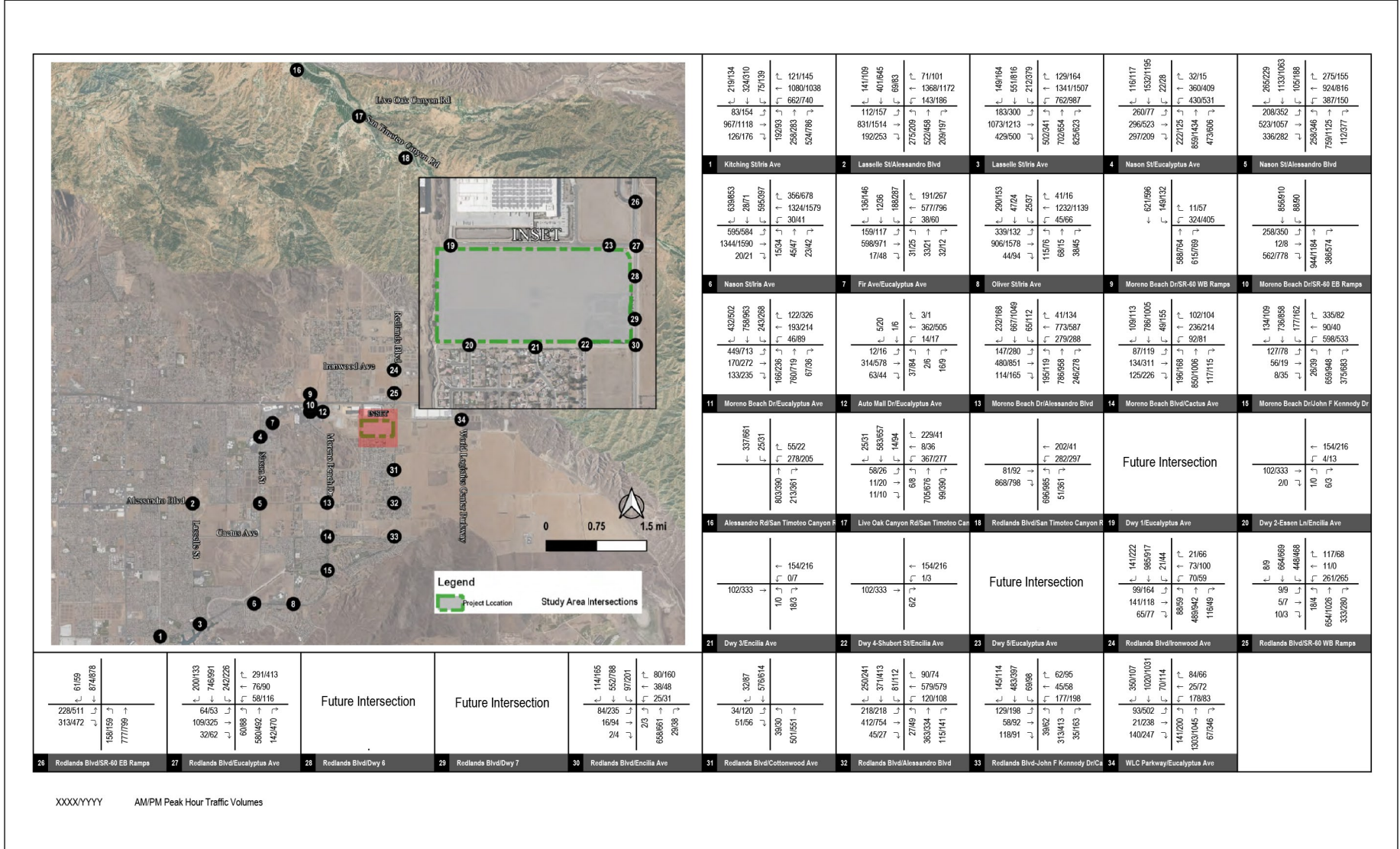


Figure 4.12-17
General Plan Build-Out (2040) Peak Hour Intersection Traffic Volumes –
Warehouse Distribution/Logistics



Source(s): translations, inc. (11-05-2020)

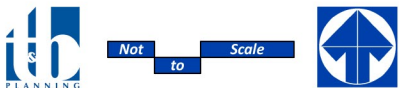


Figure 4.12-18
General Plan Build-Out (2040) Peak Hour Intersection Traffic Volumes – Fulfillment/E-Commerce



4.13 TRIBAL CULTURAL RESOURCES

This analysis is based on a site-specific cultural resource assessment report titled “Moreno Valley Trade Center Project Cultural Resources Assessment Report” (dated November 2019). The report was prepared by Rincon Consultants, Inc., (hereinafter “Rincon”) and is included as *Technical Appendix D* to this EIR.

All references used in this Subsection are included in EIR Section 7.0, *References*. Confidential information has been redacted from *Technical Appendix D* for purposes of public review. In addition, much of the written and oral communication between Native American tribes, the City of Moreno Valley, and Rincon is considered confidential in respect to places that have traditional tribal cultural significance (California Government Code Section 65352.4), and although relied upon in part to inform the preparation of this EIR Subsection, those communications are treated as confidential and are not available for public review. Under existing law, environmental documents must not include information about the location of archeological sites or sacred lands or any other information that is exempt from public disclosure pursuant to the Public Records Act (California Code Regulations Section 15120(d)).

4.13.1 EXISTING CONDITIONS

Refer to Subsection 4.4, *Cultural Resources*, for a description of the prehistoric period cultural setting for the Inland Empire region and the Moreno Valley area.

A. Prehistoric Resources

1. Project Site Conditions

Rincon conducted an intensive pedestrian survey of the Project site on October 2 and 4, 2019. The pedestrian survey consisted of a series of transects spaced at approximately 15-meter intervals to examine all exposed ground surfaces. Ground disturbances such as burrows and drainages also were visually inspected for evidence of buried cultural materials. No prehistoric resource sites or isolates were identified on the Project site during the pedestrian survey (Rincon, 2019a, pp. 27, 36).

Rincon also conducted an archaeological records search through the Eastern Information Center (EIC) at University of California, Riverside (UCR). The records search provided information regarding previous archaeological studies in the Project area and any previously recorded prehistoric sites within a one-mile radius of the Project site. The results of this records search indicate 15 prehistoric sites – predominantly bedrock milling features – and two (2) isolates were recorded within a one-mile radius of the site, and no prehistoric artifacts have been previously recorded on the Project site (Rincon, 2019a, pp. 20-21).

4.13.2 APPLICABLE REGULATORY REQUIREMENTS

The following is a brief description of the State environmental laws and related regulations governing the protection of tribal cultural resources.

A. State Regulations

1. Traditional Tribal Cultural Places Act (Senate Bill 18, “SB 18”)

Senate Bill 18 (SB 18) requires local (city and county) governments to consult with California Native American tribes to aid in the protection of traditional tribal cultural places (“cultural places”) through local land use



planning. SB 18 also requires the Governor’s Office of Planning and Research (OPR) to include in the General Plan Guidelines advice to local governments for how to conduct these consultations (OPR, 2005).

The intent of SB 18 is to provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to, cultural places. The purpose of involving tribes at these early planning stages is to allow consideration of cultural places in the context of broad local land use policy, before individual site-specific, project-level land use decisions are made by a local government.

SB 18 requires local governments to consult with tribes prior to making certain planning decisions and to provide notice to tribes at certain key points in the planning process. These consultation and notice requirements apply to adoption and amendment of both general plans (defined in Government Code § 65300 *et seq.*) and specific plans (defined in Government Code § 65450 *et seq.*). Although SB 18 does not specifically mention consultation or notice requirements for adoption or amendment of specific plans, existing state planning law requires local governments to use the same processes for adoption and amendment of specific plans as for general plans (see Government Code § 65453). Therefore, where SB 18 requires consultation and/or notice for a general plan adoption or amendment, the requirement extends also to a specific plan adoption or amendment.

2. *Assembly Bill 52 (AB 52)*

California Assembly Bill 52 (AB 52) (2014) Chapter 532 amended Section 5097.94 of, and added Sections 21073, 21074, 21080.3.1, 21080.3.2, 21802.3, 21083.09, 21084.2 and 21084.3 to the California Public Resources Code, relating to Native Americans. AB 52 was approved on September 25, 2014. The legislature added new requirements regarding tribal cultural resources in Assembly Bill 52 (AB 52). By including tribal cultural resources early in the CEQA process, the legislature intended to ensure that local and Tribal governments, public agencies, and project proponents would have information available, early in the project planning process, to identify and address potential adverse impacts to tribal cultural resources (OPR, 2017a). By taking this proactive approach, the legislature also intended to reduce the potential for delay and conflicts in the environmental review process.

The Public Resources Code now establishes that “[a] project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment.” (Pub. Resources Code, § 21084.2.) To help determine whether a project may have such an effect, the Public Resources Code requires a lead agency to consult with any California Native American tribe that requests consultation and is traditionally and culturally affiliated with the geographic area of a proposed project. That consultation must take place prior to the determination of whether a negative declaration, mitigated negative declaration, or environmental impact report is required for a project (Pub. Resources Code, § 21080.3.1.).

If a lead agency determines that a project may cause a substantial adverse change to tribal cultural resources, the lead agency must consider measures to mitigate that impact. Public Resources Code § 20184.3 (b)(2) provides examples of mitigation measures that lead agencies may consider to avoid or minimize impacts to tribal cultural resources.



Section 21074 of the Public Resources Code defines “tribal cultural resources.” In brief, in order to be considered a “tribal cultural resource,” a resource must be either:

- (1) listed, or determined to be eligible for listing, on the national, state, or local register of historic resources, or
- (2) a resource that the lead agency chooses, in its discretion, to treat as a tribal cultural resource.

In the latter instance, the lead agency must determine that the resource meets the criteria for listing in the state register of historic resources. In applying those criteria, a lead agency must consider the value of the resource to the tribe. (OPR, 2017a)

3. State Health and Safety Code

California Health and Safety Code (HSC) § 7050.5(b) requires that excavation and disturbance activities must cease “In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery...” until the coroner can determine regarding the circumstances, manner, and cause of any death. The coroner is then required to make recommendations concerning the treatment and disposition of the human remains. Further, this section of the code makes it a misdemeanor to intentionally disturb, mutilate or remove interred human remains. § 7051 specifies that the removal of human remains from “internment or a place of storage while awaiting internment” with the intent to sell them or to dissect them with “malice or wantonness” is a public offense punishable by imprisonment in a state prison. Lastly, HSC §§ 8010-8011 establish the California Native American Graves Protection and Repatriation Act consistent with the federal law addressing the same. The Act stresses that “all California Indian human remains and cultural items are to be treated with dignity and respect.” It encourages voluntary disclosure and return of remains and cultural items by publicly funded agencies and museums in California. It also outlines the need for aiding California Indian tribes, including non-federally recognized tribes, in filing repatriation claims.

4.13.3 BASIS FOR DETERMINING SIGNIFICANCE

The Project would result in a significant impact to tribal cultural resources if the Project or any Project-related component would:

- a. *Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is:*
 - i) *Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k).*
 - ii) *A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.*



The above-listed thresholds are derived directly from Appendix G to the CEQA Guidelines and address the typical, adverse effects related to tribal cultural resources that could result from development projects.

4.13.4 IMPACT ANALYSIS

The proposed warehouse distribution/logistics facility and the conceptual fulfillment/e-commerce facility site plans described in EIR Section 3.0, *Project Description*, would result in identical ground-disturbing impacts. Thus, the analysis provided on the following pages addresses the potential impacts to tribal cultural resources that would result from implementation of the Project for either warehouse distribution/logistics or fulfillment/e-commerce uses.

Threshold a: *Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:*

- i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or*
- ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.*

No prehistoric resource sites, features, places, or landscapes were identified on the Project site that are either listed or eligible for listing in the California Register of Historic Places. To be eligible for the Register, (Pub. Res. Code SS5024.1, Title 14 CCR, Section 4852), a resource must include the following:

- (A) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;*
- (B) Is associated with the lives of persons important in our past;*
- (C) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or*
- (D) Has yielded, or may be likely to yield, information important in prehistory or history.*

No resources were identified on the Project site that meet any of the four criteria listed above to be eligible for the California Register and no prehistoric resource sites or isolates were found on the Project site (Rincon, 2019a, pp. 20, 25-26, 31-32, 35). Furthermore, no substantial evidence was presented to or found by the City of Moreno Valley that led to the identification of any resources on the Project site that in the City's discretion had the potential to be considered a tribal cultural resource.



As part of the SB 18/AB 52 consultation process required by State law, the City of Moreno Valley sent notification of the Project to Native American tribes with possible traditional or cultural affiliation to the Project area. The City consulted with each tribe that requested consultation and consultation was closed on April 21, 2021. During the course of the tribal consultation process, no Native American tribe provided the City with substantial evidence indicating that tribal cultural resources, as defined in Public Resources Code section 21074, are present on the Project site or have been found previously on the Project site. Notwithstanding, due to the Project site's location in an area where multiple Native American tribes are known to have a cultural affiliation, there is the possibility that prehistoric archaeological resources, including tribal cultural resources, could be encountered during ground-disturbing construction activities – although this is considered unlikely due to the pervasive, historic and on-going disturbances that have occurred on the Project site. Were a tribal cultural resource, as defined in Public Resources Code Section 21074, to be found on the Project site during construction – and not protected – a significant impact would occur. Mitigation is required.

4.13.5 CUMULATIVE IMPACT ANALYSIS

The Project site is located within a Native American traditional use area that stretches across western Riverside County, as well as parts of San Bernardino County. Other development projects within this traditional use area would have a similar potential as the Project to adversely affect tribal cultural resources. Thus, implementation of the Project has the potential to result in a cumulatively considerable impact to tribal cultural resources for which mitigation is required.

4.13.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold a: Significant Direct and Cumulatively-Considerable Impact. The Project site does not contain any recorded, significant tribal cultural resource sites; therefore, the Project would not cause a substantial adverse change in the significance of a tribal cultural resource that is listed or eligible for listing in the California Register of Historical Resources or a local register of historical resources. Nonetheless, Project construction activities have the potential to unearth and adversely impact tribal cultural resources that may be buried or masked at the Project site.

4.13.7 MITIGATION

Mitigation Measures (MMs) 4.4-1 through 4.4-6 shall apply.

4.13.8 SIGNIFICANCE OF IMPACTS AFTER MITIGATION

Threshold a: Less-than-Significant with Mitigation Incorporated. Implementation of MMs 4.4-1 through 4.4-6 would ensure the proper identification and subsequent treatment of any significant tribal cultural resources that may be encountered during ground-disturbing activities associated with Project development. With implementation of the required mitigation, the Project's potential impact to significant tribal cultural resources would be reduced to less-than-significant.



4.14 UTILITIES & SERVICE SYSTEMS

This Subsection addresses the topics of water service and supply, wastewater collection and treatment, stormwater drainage facilities, dry utilities, and solid waste collection and disposal. The information contained herein is based on information contained in the Project's Water Supply Assessment prepared by Eastern Municipal Water District (EMWD) and publicly available information provided by local service providers and State oversight agencies. The Water Supply Assessment is provided as *Technical Appendix M* to this EIR. A complete list of references can be found in EIR Section 7.0, *References*.

4.14.1 EXISTING CONDITIONS

A. Water Service

Domestic water service is provided to the Project area by the Eastern Municipal Water District (EMWD). EMWD's water service area is approximately 555 square miles, which encompasses a majority of the eastern portion of the Santa Ana River Basin. (EMWD, 2016a, p. xii) Under existing conditions, domestic water mains are installed beneath Eucalyptus Avenue and Redlands Boulevard and a reclaimed water line is installed beneath Eucalyptus Avenue; however, the existing land used on the Project site receive water from on-site water wells and are not connected to the municipal water system.

B. Wastewater Service

Wastewater in the Project area is conveyed via sewer lines to the Moreno Valley Regional Water Reclamation Facility. The Moreno Valley Regional Water Reclamation Facility has a treatment capacity of 16 million gallons of wastewater per day; but, under existing conditions, only treats, on average, 10.6 million gallons per day. The excess treatment capacity for the Moreno Valley Regional Water Reclamation Facility is 5.4 million gallons per day. (EMWD, 2016b) Under existing conditions, sewer lines are installed within Redlands Boulevard, Encelia Avenue, and adjacent to the western Project site boundary, but the Project site is not connected to the municipal sewer conveyance network. Wastewater generated on the Project site is treated and disposed via on-site septic systems.

C. Stormwater Conveyance Facilities

Existing storm drains are installed within portions of the Eucalyptus Avenue, Redlands Boulevard, and Encelia Avenue street segments abutting the Project site. The Quincy Channel, an earthen drainage channel abuts the western Project site boundary; the Quincy Channel receives runoff via a culvert beneath Eucalyptus Avenue. Two man-made, earthen ditches are located on-site – one on the south side of Eucalyptus Avenue and one on the west side of Redlands Boulevard – that collect runoff from the abutting street. Under existing conditions, runoff flows across the site as surface sheet flow. The Project site drains to the south toward Encelia Avenue, and then travels from west to east to Redlands Boulevard and ultimately discharges to an existing channel adjacent to Redlands Boulevard.



D. Dry Utilities

Under existing conditions, the Project site contains above ground power lines along the east side of Redlands Boulevard. Existing fiber and copper facilities are located beneath Redlands Boulevard, Eucalyptus Avenue, and Encelia Avenue, which would provide telecommunications services to the Project.

E. Solid Waste Collection and Disposal

Solid waste collection and disposal services are provided to the Project area by the City of Moreno Valley through private contact with Waste Management, Inc. Solid waste collected in the City of Moreno Valley is disposed at the El Sobrante Landfill, the Badlands Sanitary Landfill, and/or the Lamb Canyon Sanitary Landfill. Under existing conditions, the Project site generates minimal solid waste (associated with the existing on-site residences and commercial nursery operations).

The El Sobrante Landfill is located east of I-15 and Temescal Canyon Road and to the south of the City of Corona at 10919 Dawson Canyon Road. In March 2020, the El Sobrante Landfill received approximately 272,429 tons of solid waste (which correlates to approximately 10,478 tons per day). The El Sobrante Landfill is permitted to receive 16,054 tons of solid waste per day and is estimated to reach capacity, at the earliest time, in the year 2051. Future landfill expansion opportunities exist at this site. (CalRecycle, El Sobrante Landfill, 2019a; RCDWR, 2020a)

The Badlands Sanitary Landfill is located north of SR-60 and south of San Timoteo Canyon Road at 31125 Ironwood Avenue. In March 2020, the Badlands Sanitary Landfill received approximately 66,300 tons of solid waste (which correlates to approximately 2,550 tons per day). The Badlands Sanitary Landfill is permitted to receive 4,800 tons of solid waste per day and is estimated to reach capacity no sooner than 2022. Future landfill expansion opportunities exist at this site. (CalRecycle, Badlands Landfill, 2019a; RCDWR, 2020c)

The Lamb Canyon Sanitary Landfill is located west of SR-79, northeast of Gilman Springs Road, and south of I-10 at 16411 Lamb Canyon Road. In March 2020, the Lamb Canyon Sanitary Landfill received approximately 46,420 tons of solid waste (which correlates to approximately 1,785 tons per day). The Lamb Canyon Sanitary Landfill is permitted to receive 5,500 tons of solid waste per day and is estimated to reach capacity, at the earliest time, in 2029. Future landfill expansion opportunities exist at this site. (CalRecycle, Lamb Canyon Landfill, 2019a; RCDWR, 2020d)

4.14.2 REGULATORY SETTING

The following is a brief description of the federal, State, and local environmental laws, regulations, and plans related to utilities and service systems.

A. State Plans, Policies, and Regulations

1. Water Conservation in Landscaping Act

The Water Conservation in Landscaping Act was established to ensure adequate water supplies are available for future uses. To promote the conservation and efficient use of water, the Act requires local agencies to adopt a water efficient landscape ordinance. When such an ordinance had not been adopted, a finding as to



why (based on the climatic, geologic, or topographical conditions) such an ordinance is not necessary, must be adopted. In the absence of such an ordinance or findings, the policies and requirements contained in the “model” ordinance drafted by the State of California shall apply within the affected jurisdiction.

2. *Urban Water Management Planning Act*

The Urban Water Management Planning Act (UWMP Act) was proposed and adopted to ensure that water planning is conducted at the local level, as the State of California recognized that two water agencies in the same region could have very different impacts from a drought. The UWMP Act requires water agencies to develop UWMPs over a 20-year planning horizon, and further required UWMPs to be updated every five years. UWMPs are exempt from compliance with CEQA (DWR, 2016, p. 1-2).

The UWMPs provide a framework for long term water planning and inform the public of a supplier’s plans for long-term resource planning that ensures adequate water supplies for existing and future demands. This part of the California Water Code (CWC) requires urban water suppliers to report, describe, and evaluate:

- Water deliveries and uses;
- Water supply sources;
- Efficient water uses;
- Demand management measures; and
- Water shortage contingency planning. (DWR, 2016, p. 1-3)

The UWMP Act has been modified over the years in response to the State’s water shortages, droughts, and other factors. A significant amendment was made in 2009, after the drought of 2007-2009 and as a result of the governor’s call for a statewide 20 percent reduction in urban water use by the year 2020. This was the Water Conservation Act of 2009, also known as SB X7-7. This Act required agencies to establish water use targets for 2015 and 2020 that would result in statewide savings of 20 percent by 2020. Beginning in 2016, retail water suppliers are required to comply with the water conservation requirements in SB X7-7 in order to be eligible for State water grants or loans. Retail water agencies are required to set targets and track progress toward decreasing daily per capita urban water use in their service area, which will assist the State in meeting its 20 percent reduction goal by 2020. (DWR, 2016, p. 1-2)

3. *California Senate Bill 610*

The California Water Code (Water Code) Sections 10910 through 10915 were amended by the enactment of SB 610 in 2002. SB 610 requires an assessment of whether available water supplies are sufficient to serve the demand generated by a proposed project, as well as the reasonably foreseeable cumulative demand in the region over the next 20 years under average normal year, single dry year, and multiple dry year conditions. Under SB 610, water assessments must be furnished to local governments for inclusion in any environmental documentation for certain projects (as defined in Water Code 10912 [a]) subject to CEQA (DWR, 2003). For the purposes of SB 610, “project” means any of the following:



- A proposed residential development of more than 500 dwelling units.
- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.
- A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.
- A proposed hotel or motel, or both, having more than 500 rooms.
- A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.
- A mixed-use project that includes one or more of the projects specified in this subdivision.
- A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500-dwelling unit project. (DWR, 2003)

Because the Project proposes more than 650,000 square feet of floor area for an industrial land use, the Project meets the definition of a “project” pursuant to SB 610. A Water Supply Assessment is required for the Project and is included as *Technical Appendix M*.

In *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova*, the California Supreme Court articulated the following principles for analysis of future water suppliers for projects subject to CEQA:

- To meet CEQA's informational purposes, the EIR must present sufficient facts to decision makers to evaluate the pros and cons of supplying the necessary amount of water to the project.
- CEQA analysis for large, multiphase projects must assume that all phases of the project will eventually be built and the EIR must analyze, to the extent reasonably possible, the impacts of providing water to the entire project. Tiering cannot be used to defer water supply analysis until future phases of the project are built. CEQA analysis cannot rely on “paper water.” The EIR must discuss why the identified water should reasonably be expected to be available. Future water supplies must be likely, rather than speculative. When there is some uncertainty regarding availability of future water supply, an EIR should acknowledge the degree of uncertainty, include a discussion of possible alternative sources, and identify the environmental impacts of such alternative sources. Where a full discussion still leaves some uncertainty about the long-term water supply's availability, mitigation measures for curtailing future development in the event that intended sources become unavailable may become a part of the EIR's approach.
- The EIR does not need to show that water supplies are definitely assured because such a degree of certainty would be “unworkable, as it would require water planning to far outpace land use planning.” The requisite degree of certainty of a project's water supply varies with the stage of project approval. CEQA does not require large projects, at the early planning phase, to provide high degree of assurances of certainty regarding long-term future water supplies.



- The EIR analysis may rely on existing urban water management plans, as long as the project's new demand was included in the water management plan's future demand accounting.
- The ultimate question under CEQA is not whether an EIR establishes a likely source of water, but whether it adequately addresses the reasonably foreseeable impacts of supplying water to the project.

4. *Executive Order B-37-16*

Signed on May 9, 2016, EO B-37-16 established a new water use efficiency framework for California. The order bolstered the state's drought resilience and preparedness by establishing longer-term water conservation measures that include permanent monthly water use reporting, new urban water use targets, reducing system leaks and eliminating clearly wasteful practices, strengthening urban drought contingency plans, and improving agricultural water management and drought plans. (SWRCB, 2018)

5. *Executive Order B-40-17*

Signed on April 7, 2017, EO B-40-17 ended the drought state of emergency in all California counties except Fresno, Kings, Tulare, and Tuolumne, where emergency drinking water projects will continue to help address diminished groundwater supplies. It maintains water reporting requirements and prohibitions on wasteful practices. The order was built on actions taken in Executive Order B-37-16, which remains in effect. In a related action, state agencies, including the Department of Water Resources (DWR), released a plan to continue making water conservation a way of life. (SWRCB, 2018)

6. *California Solid Waste Integrated Waste Management Act (AB 939, 1989)*

The Integrated Waste Management Act (IWMA) established an integrated waste management hierarchy to guide the California Integrated Waste Management Board (CIWMB) and local agencies in implementation, in order of priority: (1) source reduction, (2) recycling and composting, and (3) environmentally safe transformation and land disposal (it should be noted that the CIWMB no longer exists, and its duties have been assumed by CalRecycle). As part of the IWMA, the CIWMB was given a purpose to mandate the reduction of disposed waste. (CalRecycle, 2018a) The IWMA also required:

- The establishment of a task force to coordinate the development of city Source Reduction and Recycling Elements (SRREs) and a countywide siting element. (CalRecycle, 2018a)
- Each city, by July 1, 1991, to prepare, adopt and submit a SRRE to the county which includes the following components: waste characterization; source reduction; recycling; composting; solid waste facility capacity; education and public information; funding; special waste (asbestos, sewage sludge, etc.); and household hazardous waste. (CalRecycle, 2018a)
- Each county, by January 1, 1991, to prepare a SRRE for its unincorporated area, with the same components described above, and a countywide siting element, specifying areas for transformation or disposal sites to provide capacity for solid waste generated in the jurisdiction which cannot be reduced or recycled for a 15-year period. (CalRecycle, 2018a)



- Each county to prepare, adopt, and submit to the Board an Integrated Waste Management Plan (IWMP), which includes all of the elements described above. (CalRecycle, 2018a)
- Each city or county plan to include an implementation schedule which shows: diversion of 25 percent of all solid waste from landfill or transformation facilities by January 1, 1995 through source reduction, recycling, and composting activities; and, diversion of 50 percent of all solid waste by January 1, 2000 through source reduction, recycling, and composting activities. (CalRecycle, 2018a)
- The CIWMB to review the implementation of each SRRE at least once every two years. (CalRecycle, 2018a)
- The IWMA required the CIWMB, in conjunction with an inspection conducted by a Lead Enforcement Agency (LEA), to conduct at least one inspection per year of each solid waste facility in the state. (CalRecycle, 2018a)

Additionally, the IWMA established a comprehensive statewide system of permitting, inspections, enforcement, and maintenance for solid waste facilities. (CalRecycle, 2018a)

7. *Waste Reuse and Recycling Act (AB 1327)*

The Waste Reuse and Recycling Act (WRRRA) required the CIWMB to approve a model ordinance for adoption by any local government for the transfer, receipt, storage, and loading of recyclable materials in development projects by March 1, 1993. The WRRRA also required local agencies to adopt a local ordinance by September 1, 1993 or allow the model ordinance to take effect. The WRRRA requires all development projects that are commercial, industrial, institutional, or marina in nature and where solid waste is collected and loaded, to provide an adequate area for collecting and loading recyclable materials over the lifetime of the project. The area is required to be provided before building permits are issued. (CalRecycle, 2018b)

8. *Mandatory Commercial Recycling Program (AB 341)*

Assembly Bill (AB) 341 (Chapter 476, Statutes of 2011 [Chesbro, AB 341]) directed CalRecycle to develop and adopt regulations for mandatory commercial recycling. CalRecycle initiated formal rulemaking with a 45-day comment period beginning Oct. 28, 2011. The final regulation was approved by the Office of Administrative Law on May 7, 2012. AB-341 was designed to help meet California's recycling goal of 75% by the year 2020. AB 341 requires all commercial businesses and public entities that generate 4 cubic yards or more of waste per week to have a recycling program in place. In addition, multi-family apartments with five or more units are also required to form a recycling program. (CalRecycle, 2020)

9. *2019 California Green Building Standards Code (CalGreen, Part 11 of Title 24, California Code of Regulations)*

The most recent edition of CalGreen became effective January 1, 2020, and is applicable to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure throughout the State of California (including residential structures and elementary schools). CalGreen Section 5.408.3 requires that 100 percent of trees, stumps, rocks, and associated vegetation and soils resulting from



land clearing shall be reused or recycled. For a phased project, such material may be stockpiled on-site until the storage site is developed. (CBSC, 2020)

B. Local Plans, Policies, and Regulations

1. EMWD Urban Water Management Plan

The 2015 *UWMP* acts as the urban water management plan (UWMP) for the EMWD, is herein incorporated by reference, and is available for public review at 2270 Trumble Road, Perris, CA 92570. The *UWMP* includes a water system analysis, identifies improvements to correct existing deficiencies and serve projected future growth, and presents the estimated costs and phasing of the recommended improvements. As concluded in the *UWMP*, EMWD anticipates that it will be able to meet projected demand for water within its service boundaries until at least the year 2040 in all types of climate situations, including normal, dry, and multiple consecutive dry weather years (EMWD, 2016a, Tables 7-4 through 7-9).

A Water Shortage Contingency Plan is included in the *UWMP*, which EMWD is to implement in cases of future water deficiencies caused by limitations on supply or the EMWD's delivery system. At the time of long- or short-term drought conditions, or other emergencies, EMWD would inform their customers of the need to conserve water and impose penalties for non-compliance with mandatory water use reductions. Compliance with mandatory water use reductions would ensure that EMWD has the ability to meet present and projected demand within its service area during dry years. (EMWD, 2016a, p. 8-1)

2. Moreno Master Drainage Plan

The Project site is located within the RCFCWCD's Moreno Master Drainage Plan (MDP). The Moreno MDP was prepared by the Riverside County Flood Control and Water Conservation District (RCFCWCD), to identify master-planned drainage and flood control facilities that are needed in the Project area to safely convey the peak runoff of a 100-year frequency storm. (RCFCWCD, 2015) Per the Moreno MDP, drainage flows from the Project site are planned to outlet to the Line "F-2" storm drain, located beneath Redlands Boulevard, which ties into an existing earthen channel Line "F," located approximately 1.4 miles south of the Project site (RCFCWCD, 2015; Thienes, 2019a).

3. Riverside County Integrated Waste Management Plan

The Countywide Integrated Waste Management Plan (CIWMP) was prepared in accordance with the California Integrated Waste Management Act of 1989, Chapter 1095 (AB 939). The CIWMP establishes a County-wide plan to reduce the volume and toxicity of solid waste that is landfilled and incinerated in the County and meet the minimum diversion goals of AB 939 (i.e., 25% diversion of solid waste by 1995 and a 50% diversion of the solid waste by 2000). (RCDWR, 2020)

4. City of Moreno Valley Construction Waste Ordinance

Chapter 8.80, *Recycling and Diversion of Construction and Demolition Waste*, of the Moreno Valley Municipal Code requires at least 50% of waste tonnage from construction, demolition, and remodeling debris be diverted from the landfill. In addition, development projects are required to implement a construction site



management plan to divert cardboard, wood, pallets, and other recyclable materials from the site. (Moreno Valley, 2018)

4.14.3 BASIS FOR DETERMINING SIGNIFICANCE

The Project would result in a significant impact associated with utilities and service systems if the Project or any Project-related component would:

- a. *Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction of which could cause significant environmental effects;*
- b. *Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years;*
- c. *Result in a determination by the wastewater treatment provider which serves or may serve the project determined that it has adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments;*
- d. *Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; and*
- e. *Comply with federal, State, and local management and reduction statutes and regulations related to solid waste.*

The above-listed thresholds are referenced in the *City of Moreno Valley Rules and Procedures for the Implementation of the California Environmental Quality Act* and address the typical, adverse effects that a development project could have on public utilities and service systems.

4.14.4 IMPACT ANALYSIS

The proposed warehouse distribution/logistics facility and the conceptual fulfillment/e-commerce facility site plans described in EIR Section 3.0, *Project Description*, are expected to require similar utility improvements, consume similar amounts of water, and generate similar volumes of wastewater and solid waste. Accordingly, the analysis provided on the following pages addresses the potential construction- and operational-related impacts to utilities and service systems that would result from implementation of the Project for either warehouse distribution/logistics or fulfillment/e-commerce uses.

Threshold a: *Would the Project require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction of which could cause significant environmental effects?*

A. Water and Water Treatment Facilities

No existing water lines would be relocated or upsized as part of the proposed Project. The Project does include the construction of a new water line segment that would connect the proposed building to an existing 24-inch-



diameter water main beneath Eucalyptus Avenue. The construction of the proposed water service improvements has the potential to cause environmental effects associated with short-term air pollutant emissions, noise, and traffic movement disruptions and are an inherent part of the Project's construction process. All water utility construction work that occurs within a public street right of way must adhere to the construction control practices that reduce impacts that are specified in the State of California Department of Transportation Construction Manual, dated July 2017, published by Caltrans (Caltrans, 2017). Environmental impacts associated with the construction of the proposed water line to serve the Project are evaluated throughout this EIR. Where significant impacts are identified, feasible and enforceable mitigation measures are imposed on the Project to reduce impacts to the maximum practical effect. There are no significant environmental impacts specifically related to installation of the proposed water line.

While the Project would result in an incremental increase in demand for water treatment services, the Project water demand, which is further discussed under the response to Threshold "b" in this Subsection, would not result in or require new or expanded water treatment facilities beyond those facilities already planned as part of EMWD's 2015 UWMP.

B. Wastewater and Wastewater Treatment Facilities

The Project would involve the construction of an on-site network of sewer pipes that would connect to an existing 12-inch sewer line beneath Encelia Avenue. The Project would not result in the relocation or expansion of any existing sewer lines. The Project would not require or result in the relocation or construction of new or expanded wastewater treatment facilities. The construction of the proposed wastewater service improvements has the potential to cause environmental effects associated with short-term air pollutant emissions, noise, and traffic movement disruptions and are an inherent part of the Project's construction process. All wastewater utility construction work that occurs within a public street right of way must adhere to the construction control practices that reduce impacts that are specified in the State of California Department of Transportation Construction Manual, dated July 2017, published by Caltrans (Caltrans, 2017). Environmental impacts associated with the construction of the proposed wastewater line to serve the Project are evaluated throughout this EIR. Where significant impacts are identified, feasible and enforceable mitigation measures are imposed on the Project to reduce impacts to the maximum practical effect. There are no significant environmental impacts specifically related to installation of the proposed wastewater line.

While the Project would result in an incremental increase in demand for wastewater treatment services, the Project wastewater treatment demand, which is further discussed under the response to Threshold "c" in this Subsection, would not result in or require new or expanded wastewater treatment facilities.

C. Stormwater Drainage Facilities

The Project also would involve the construction of an on-site stormwater drain system, including catch basins and underground storm drain pipes to capture and convey storm water runoff from across the Project site to a proposed water quality/detention basin located along the southern boundary of the Project site. The system is designed to collect, treat, and temporarily detain on-site stormwater runoff before discharging treated flows off-site. Specifically, "first flush" flows (i.e., typically the first 3/4-inch of initial surface runoff after a rainstorm, which contains the highest proportion of waterborne pollution) would be diverted to the water



quality/detention basin for treatment. During peak storm events, the basin also would temporarily detain stormwater runoff on-site and would control the release of stormwater flows from the Project site. From the water quality/detention basin, stormwater runoff flows would be discharged to a proposed private underground storm drain line that is proposed to extend off-site, extending from the southeastern corner of the Project site to the proposed extension of the public storm drain system beneath Redlands Boulevard. The proposed public storm drain beneath Redlands Boulevard would be upsized in accordance with the Moreno MDP to replace the smaller existing storm drain beneath Redlands Boulevard in order to accommodate upstream runoff as well as runoff from the detention basin. The proposed storm drain beneath Redlands would extend to Dracaea and would connect to an existing storm drain. These improvements beneath Redlands Boulevard and south of Encelia Avenue would be consistent with the Moreno MDP.

The construction of the proposed storm drain improvements has the potential to cause environmental effects associated with short-term air pollutant emissions, noise, and traffic movement disruptions and are an inherent part of the Project's construction process. All stormwater utility construction work that occurs within a public street right of way must adhere to the construction control practices that reduce impacts that are specified in the State of California Department of Transportation Construction Manual, dated July 2017, published by Caltrans (Caltrans, 2017). Environmental impacts associated with the construction of the proposed and upsized storm drain lines and off-site roadside channel to serve the Project are evaluated throughout this EIR. Where significant impacts are identified, feasible and enforceable mitigation measures are imposed on the Project to reduce impacts to the maximum practical effect. There are no significant environmental impacts specifically related to installation of the proposed and upsized storm drain lines beneath Redlands Boulevard and the proposed off-site roadside channel south of Encelia Avenue.

D. Dry Utilities (Electrical Power, Natural Gas, and Telecommunications)

The Project would involve utility connections to provide electric power and telecommunications services to the site. In addition, existing above ground power lines located along the Project site's frontage with Redlands Boulevard would be undergrounded as part of Project construction. The Project Applicant does not anticipate the need to provide natural gas service to the Project site (although Project natural gas usage was assumed in the air quality, energy, and greenhouse gas analyses presented in this EIR as a conservative measure). The construction of the proposed dry utility improvements has the potential to cause environmental effects associated with short-term air pollutant emissions, noise, and traffic movement disruptions and are an inherent part of the Project's construction process. All dry utility construction work that occurs within a public street right of way must adhere to the construction control practices that reduce impacts that are specified in the State of California Department of Transportation Construction Manual, dated July 2017, published by Caltrans (Caltrans, 2017). Environmental impacts associated with the construction of proposed dry utility improvements to serve the Project are evaluated throughout this EIR. Where significant impacts are identified, feasible and enforceable mitigation measures are imposed on the Project to reduce impacts to the maximum practical effect. There are no significant environmental impacts specifically related to installation of proposed dry utility improvements.



E. Conclusion

In summary, the installation of the utility and service system infrastructure improvements proposed by the Project Applicant would result in physical environmental impacts inherent in the Project's construction process; however, these impacts have already been included in the analyses of construction-related effects presented throughout this EIR. In instances where the Project's construction phase would result in specific, significant impacts, feasible mitigation measures are provided. The construction of infrastructure necessary to serve the proposed Project would not result in any significant physical effects on the environment that are not already identified and disclosed elsewhere in this this EIR. Accordingly, impacts would be less than significant and additional mitigation measures beyond those identified throughout other subsections of this EIR would not be required.

Threshold b: *Would sufficient water supplies be available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years?*

As previously stated, the EMWD would provide potable water service to the Project. Present and future water supplies available to the EMWD to provide water service to the Project include imported water purchased from Metropolitan Water District (MWD), local potable groundwater, local desalinated groundwater, and recycled water (EMWD, 2020, p. 5).

A Water Supply Assessment was prepared to assess the Project's effect on the EMWD's ability to provide adequate water service to its customers during normal, dry, and multiple dry years. The Water Supply Assessment, which is provided as *Technical Appendix M* to this EIR, was prepared in accordance with SB 610 and SB 221. According to the WSA, the estimated annual water demand for the Project is 186.7 acre-feet (AF), which is greater than the 28.0 AF planned for the site by the *2015 UWMP*. The rate of demand growth in EMWD's service area has occurred at a lower rate than the projections used in the *2015 UWMP*, which forecast retail potable/raw water demands to reach 93,400 AF by calendar year 2020. Retail potable/raw water deliveries (including temporary construction meters but excluding system losses) in 2019 totaled approximately 71,140 AF, well below the demands projected for 2020. Because local growth demands have not kept up with the *2015 UWMP* projected deliveries, EMWD is able to meet the Project water demand without the need for offsets or the acquisition of additional water supplies. Additionally, EMWD calculates that it will have sufficient water supplies to meet all water existing demands for the Project in addition to its existing and projected future responsibilities through the planning horizon year (2040) during all climate scenarios, including normal year, single dry year, and multiple dry years. (EMWD, 2020, pp. 19-22)

Based on the foregoing, EMWD has adequate existing water entitlements and resources to serve the Project. Implementation of the Project would not cause EMWD to be unable to meet the demands of existing and future service obligations during normal, dry, and multiple dry years. The Project's impact to water supply would be less than significant.



Threshold c: Would the Project result in a determination by the wastewater treatment provider which serves or may serve the project determined that it has adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments?

Wastewater generated by the Project would be treated at the Moreno Valley Regional Water Reclamation Facility. Under existing conditions, the Moreno Valley Regional Water Reclamation Facility has an excess treatment capacity of approximately 5.4 million gallons per day, while Project operations are conservatively estimated to generate approximately 123,250 gallons of wastewater per day (1,700 gpd per acre × 72.5 net acres = 123,250 gpd) (EMWD, 2016b; EMWD, 2006, Table 1). Implementation of the Project would utilize approximately 2.3% of the excess daily treatment capacity at the Moreno Valley Regional Water Reclamation Facility. Accordingly, the Moreno Valley Regional Water Reclamation Facility has sufficient excess capacity to treat wastewater generated by the Project in addition to existing commitments. Implementation of the Project would not create the need for any new or expanded wastewater facility. Because there is adequate capacity at existing treatment facilities to serve Project demands, impacts would be less than significant and mitigation is not required.

Threshold d: Would the Project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

The Project would be required to comply with mandatory waste reduction requirements of the California Integrated Waste Management Act (AB 939), the California Solid Waste Reuse and Recycling Act of 1991 (Cal Pub Res. Code Section 42911), and the Chapter 8.80, *Recycling and Diversion of Construction and Demolition Waste*, of the City of Moreno Valley Municipal Code. Notwithstanding, construction and operation of the Project would result in the generation of solid waste requiring disposal at a landfill.

A. Construction Impact Analysis

Approximately 3,630 s.f. of on-site structures would be demolished during Project construction, which would produce waste requiring disposal. Using a residential structure demolition waste generation factor of 50 pounds per square foot (EPA, 2009, Table A-3), demolition of the existing structures on-site would generate approximately 90.8 tons of debris requiring disposal ($[3,630 \text{ s.f.} \times 50 \text{ lbs/s.f.}] \div 2,000 \text{ lbs/ton} = 90.8 \text{ tons}$). AB 939 and Chapter 8.80 of the City of Moreno Valley Municipal Code requires that a minimum of 50% of all solid waste be diverted from landfills (by recycling, reusing, and other waste reduction strategies); therefore, the Project is estimated to generate approximately 45.4 tons of demolition waste requiring landfilling.

Waste also would be generated by the Project construction process, primarily comprising discarded materials and packaging. Based on a proposed building area of 1,328,853 s.f. and a construction waste generation factor of 4.34 pounds per square foot (EPA, 2009, p. 10), approximately 2,891 tons of waste would be generated over the course of Project construction ($[1,328,853 \text{ s.f.} \times 4.34 \text{ lbs/sq. ft}] \div 2,000 \text{ lbs/ton} = 2,884 \text{ tons}$). AB 939 and Chapter 8.80 of the City of Moreno Valley Municipal Code requires that a minimum of 50% of all solid waste be diverted from landfills (by recycling, reusing, and other waste reduction strategies) consistent with the State’s solid waste reduction goals; therefore, the Project is estimated to generate approximately 1,442 tons of construction waste.



The Project’s combined demolition and construction activities would generate approximately 1,487.4 tons of solid waste requiring disposal at a landfill. The Project’s building construction would occur over a period of approximately 410 working days, which corresponds to approximately 3.6 tons of construction waste being generated per day of construction activity.

Non-recyclable demolition debris and construction waste generated by the Project would be disposed at the El Sobrante Landfill, Badlands Sanitary Landfill, and/or the Lamb Canyon Sanitary Landfill. The volume of solid waste generated during Project construction (3.6 tons per day) would neither exceed State or local disposal standards nor exceed the local infrastructure capacity to handle the waste disposal. As described in Subsection 4.14.1E, the El Sobrante Landfill, Badlands Sanitary Landfill, and Lamb Canyon Sanitary Landfill each receive well below their maximum permitted daily disposal volume; thus, the relatively minimal demolition and construction waste generated during Project construction is not anticipated to cause these landfills to exceed their maximum permitted daily disposal volume. Furthermore, the El Sobrante Landfill, the Badlands Sanitary Landfill, and the Lamb Canyon Sanitary Landfill are not expected to reach their total maximum permitted disposal capacities during the Project’s construction period. The El Sobrante Landfill, the Badlands Sanitary Landfill, and the Lamb Canyon Sanitary Landfill would have sufficient daily capacity to accept solid waste generated by the Project’s construction phase; therefore, impacts to landfill capacity associated with near-term Project construction activities would be less than significant.

B. Operational Impact Analysis

Based on a daily waste generation factor of 1.42 pounds of waste per 100 square feet of industrial/warehouse building area (CalRecycle, 2019b), long-term operation of the Project would generate approximately 9.4 tons of solid waste per day ($[1,328,853 \text{ sq. ft.} \times 1.42 \text{ lbs/ 100 sq. ft}] \div 2,000 \text{ lbs/ton} = 9.4 \text{ tons}$). A minimum of 50% of all solid waste would be required to be recycled pursuant to AB 939, consistent with the State’s solid waste reduction goals; therefore, Project operation would generate approximately 4.7 tons per day of solid waste requiring disposal at a landfill.

Non-recyclable waste generated by Project operations would be disposed at the El Sobrante Landfill, Badlands Sanitary Landfill, and/or the Lamb Canyon Sanitary Landfill. The long-term generation of this volume of solid waste is not in excess of State or local disposal standards, or in excess of the local infrastructure capacity to handle the waste disposal. As described above, the El Sobrante Landfill, Badlands Sanitary Landfill, and/or the Lamb Canyon Sanitary Landfill each receive well below their maximum permitted daily disposal volume; thus, waste generated by the Project’s operation is not anticipated to cause any of these landfills to exceed their maximum permitted daily disposal volume. Because the Project would generate a relatively small amount of solid waste per day as compared to the permitted daily capacities at receiving landfills, impacts to regional landfill facilities during the Project’s long-term operational activities would be less than significant.

Threshold e: Would the Project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

The California Integrated Waste Management Act (AB 939), signed into law in 1989, established an integrated waste management system that focused on source reduction, recycling, composting, and land disposal of waste. In addition, the bill established a 50 percent waste reduction requirement for cities and counties by the year



2000, along with a process to ensure environmentally safe disposal of waste that could not be diverted. Per the requirements of the Integrated Waste Management Act, the Riverside County Board of Supervisors adopted the County of Riverside Countywide Integrated Waste Management Plan (CIWMP), which outlines the goals, policies, and programs the County and its cities implement to create an integrated and cost-effective waste management system that complies with the provisions of AB 939 and its diversion mandates.

In order to assist the City of Moreno Valley in achieving the mandated goals of the Integrated Waste Management Act, the Project's building occupant(s) would be required to work with future refuse haulers to develop and implement feasible waste reduction programs, including source reduction, recycling, and composting. Additionally, in accordance with the California Solid Waste Reuse and Recycling Act of 1991 (Cal Pub Res. Code Section 42911), the Project is required to provide adequate areas for collecting and loading recyclable materials where solid waste is collected. The collection areas are required to be shown on construction drawings and be in place before occupancy permits are issued. (CA Legislative Information, 2005) Further, in compliance with AB 341 (Mandatory Commercial Recycling Program), the future occupant(s) of the proposed Project would be required to arrange for recycling services, if the occupant generates four (4) or more cubic yards of solid waste per week (CA Legislative Information, 2011). The implementation of these mandatory requirements would reduce the amount of solid waste generated by the Project and diverted to landfills, which in turn will aid in the extension of the life of affected disposal sites. The Project would be required to comply with all applicable solid waste statutes and regulations; as such, impacts related to solid waste statutes and regulations would be less than significant.

4.14.5 CUMULATIVE IMPACT ANALYSIS

The Project would require the installation of water, sewer, stormwater, electric power, and telecommunications facilities to provide utility service to the Project site. Cumulative effects associated with the Project's proposed water, sewer, stormwater drainage, and utility connections have been evaluated throughout this EIR, and where necessary mitigation measures have been identified to reduce impacts by the maximum feasible extent. There are no components of the Project's water, sewer, stormwater drainage, or utility connections that would result in cumulatively-considerable impacts not already evaluated by this EIR. Accordingly, Project impacts due to new or expanded water, wastewater treatment, stormwater drainage, and utility connections would be less-than-cumulatively considerable.

The analysis in the Project's WSA (*Technical Appendix M*), which is based on the EMWD's 2015 UWMP, demonstrates that with implementation of the Project and other cumulative developments, the EMWD would have adequate water supplies during normal, dry, and multiple dry years. Therefore, cumulatively-considerable impacts due to water supply would be less than significant.

Under long-term, cumulative conditions, EMWD anticipates future increases in the demand for wastewater treatment services as the population within their service area grows. As discussed within the response to Threshold "c," the Project would not directly result in the need for expanded wastewater treatment facilities, the Moreno Valley Regional Water Reclamation Facility has sufficient existing capacity to handle wastewater generated by the Project. The Project's incremental contribution to wastewater generation may contribute to an ultimate need to expand the Moreno Valley Regional Water Reclamation Facility (which is planned for an ultimate expansion to 41 million gallons of treatment capacity per day, an approximate 150 percent expansion



of existing treatment capabilities) and/or the construction of additional wastewater treatment facilities. Any proposed changes to capacity of the EMWD or any facility maintained by EMWD are reviewed throughout the year by EMWD. For all new development within the EMWD service area, connection and service fees are allocated to assist in the financing of any future collection and disposal facilities and any future new/modified sewer treatment plant facilities. Cumulative development would not exceed the capacity of the wastewater treatment system because the Moreno Valley Regional Water Reclamation Facility would be expanded in the future as growth occurs. Therefore, the Project's cumulative impacts to wastewater treatment facilities are evaluated as less than significant.

Solid waste generated by construction and operation of the Project would represent nominal proportions of the daily disposal capacities at the El Sobrante Landfill, the Badlands Sanitary Landfill, and/or the Lamb Canyon Sanitary Landfill. Each of these landfills has a sufficient daily capacity to handle solid waste generated by the Project and other cumulative developments both during construction and long-term operation. The Project's incremental contribution to solid waste generation may contribute to an ultimate need for expanding the solid waste disposal facilities that would serve the Project and/or the construction of additional solid waste disposal facilities. Moreover, it is possible that as other developments in the region are proposed, construction of new solid waste disposal facilities to serve those developments could occur, and such facilities may or may not receive solid waste generated by the Project. The City's waste hauler would use a variety of County landfills in the area. With planned expansion activities of landfills in the Project vicinity (including the El Sobrante Landfill, the Badlands Sanitary Landfill, and the Lamb Canyon Sanitary Landfill), sufficient landfill capacity would exist to accommodate future disposal needs through at least 2051, 2022, and 2029, respectively. Therefore, cumulative development would not create demands for solid waste services that would exceed the capabilities of the County's waste management system. Therefore, the Project's cumulative impacts to solid waste disposal facilities are evaluated as less than significant.

Each individual development project is subject to review for utility capacity to avoid unanticipated interruptions in service or inadequate supplies. Coordination with the utility providers would allow for the provision of utility services to development projects without interrupting or degrading services to existing customers. The Project and other development projects are subject to connection and service fees to offset increased demand and assist in facility expansion and service improvements (at the time of need). Because the comprehensive utility and service planning and coordination activities described above would ensure that new development projects do not disrupt or degrade the provision of utility services, cumulatively considerable impacts to utilities and service systems would not occur.

4.14.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold a: Less-than-Significant Impact. The physical environmental effects associated with installing the Project's water, wastewater, stormwater drainage, and electric power infrastructure is evaluated throughout this EIR and no adverse impacts specific to the provision utilities services have been identified.

Threshold b: Less-than-Significant Impact. EMWD is expected to have sufficient water supplies to service the Project. The Project would not exceed the EMWD's available supply of water during normal years, single-dry years, or multiple-dry years.



Threshold c: Less-than-Significant Impact. EMWD would provide wastewater treatment services to the Project site via the Moreno Valley Regional Water Reclamation Facility, which would have adequate capacity to service the Project and no new or expanded facilities would be needed.

Threshold d: Less-than-Significant Impact. There is adequate capacity available at the El Sobrante Landfill, Badlands Sanitary Landfill, and Lamb Canyon Sanitary Landfill to accept the Project's solid waste during both construction and long-term operation. The Project would not generate solid waste in excess of State or local standards or in excess of the capacity of local infrastructure to handle the waste.

Threshold e: Less-than-Significant Impact. The Project would comply with all applicable federal, State, and local statutes and regulations related to the management and reduction of solid waste and pertaining to waste disposal, reduction, and recycling.

4.14.7 MITIGATION

Impacts would be less than significant; therefore, mitigation is not required.



5.0 OTHER CEQA CONSIDERATIONS

5.1 SIGNIFICANT ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED IF THE PROJECT IS IMPLEMENTED

The CEQA Guidelines require that an EIR disclose the significant environmental effects of a project which cannot be avoided if the proposed project is implemented (CEQA Guidelines Section 15126(b)). As described in detail in Section 4.0, *Environmental Analysis*, of this EIR, the proposed Project is anticipated to result in impacts to the environment that cannot be reduced to below a level of significance after the consideration of Project design features, compliance with applicable federal, State and local regulations, and the application of the feasible mitigation measures identified in this EIR. The significant impacts that cannot be mitigated to a level below thresholds of significance consist of the following:

- Aesthetics: Implementation of the Project would mostly or completely block views of Reche Canyon and the Badlands (and the San Bernardino Mountains beyond) from the segment of Encelia Avenue that abuts the Project site on the south (west of Shubert Street). Also, implementation of the Project would mostly or completely block scenic views of Mount Russell and its foothills from the segment of Eucalyptus Avenue that abuts the Project site. This would be a significant and unavoidable direct impact.
- Air Quality (Air Quality Management Plan Conflict): The Project would emit air pollutants (NO_x) that would contribute to a delay in the attainment of federal and State ozone standards in the SCAB. Because the Project requires a General Plan Amendment, it also would exceed the growth projections contained in SCAQMD's 2016 AQMP. As such, the Project would conflict with and could obstruct implementation of the AQMP. Project impacts due to a conflict with the SCAQMD 2016 AQMP would be significant and unavoidable on both a direct and cumulatively-considerable basis.
- Air Quality (Criteria Pollutant Emissions): After the application of Project design features, mandatory regulatory requirements, and feasible mitigation measures, Project-related NO_x emissions during long-term operation of the Project would remain above the applicable SCAQMD regional thresholds. Accordingly, Project-related emissions would not meet SCAQMD air quality standards and contribute to the non-attainment of ozone standards in the SCAB. Therefore, Project operational-related impacts due to NO_x emissions would be significant and unavoidable on a direct and cumulatively-considerable basis.
- Greenhouse Gas Emissions (GHG Emissions Generation): Project-related GHG emissions would exceed the applicable SCAQMD significance threshold for GHG emissions and would result in a cumulatively-considerable impact to the environment.



5.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES WHICH WOULD BE CAUSED BY THE PROJECT SHOULD IT BE IMPLEMENTED

The CEQA Guidelines require EIRs to address any significant irreversible environmental changes that would be involved in the proposed action should it be implemented (CEQA Guidelines Section 15126.2(c)). An environmental change would fall into this category if: a) the project would involve a large commitment of non-renewable resources; b) the primary and secondary impacts of the project would generally commit future generations to similar uses; c) the project involves uses in which irreversible damage could result from any potential environmental accidents; or d) the proposed consumption of resources are not justified (e.g., the project results in the wasteful use of energy).

Determining whether the Project may result in significant irreversible environmental changes requires a determination of whether key non-renewable resources would be degraded or destroyed in such a way that there would be little possibility of restoring them. Natural resources, in the form of construction materials and energy resources, would be used in the construction of the proposed Project. The consumption of these natural resources would represent an irreversible change to the environment. However, development of the Project site for either a warehouse distribution/logistics use or e-commerce/fulfillment use would have no measurable adverse effect on the availability of such resources, including resources that may be non-renewable (e.g., construction aggregates, fossil fuels). Additionally, the Project is required by law to comply with the California Green Building Standards Code (CALGreen), which will minimize the Project's demand for energy, including energy produced from non-renewable sources. A more detailed discussion of Project energy consumption is provided in EIR Subsection 4.5, *Energy*.

Implementation of the Project would commit the Project site to one large light industrial building. The potential warehouse distribution/logistics and e-commerce/fulfillment land uses for the Project are compatible with the existing industrial land uses that are located north and northwest of the Project site and the planned industrial land uses that are located east of the Project site (i.e., World Logistics Center). Although the proposed light industrial building could be perceived to be incompatible with the existing residential land uses that abut the Project site on the south, the Project would not result in any significant and unavoidable local/localized physical impacts to these receptors under either of its potential uses. Although the Project would result in unavoidable physical impacts to air quality and greenhouse gas emissions, these effects are significant due to their effect on the region, not their local impacts to receptors located near the Project site. Accordingly, the Project and its environmental effects would not compel or commit surrounding properties to land uses other than those that are existing today or those that are planned by the City of Moreno Valley General Plan. For this reason, the Project would not result in a significant, irreversible change to nearby, off-site properties.

EIR Subsection 4.8, *Hazards and Hazardous Materials*, provides an analysis of the potential for hazardous materials to be transported to/from the Project site and/or used on the Project site during construction and operation. As concluded in Subsection 4.8, mandatory compliance with federal, State, and local regulations related to hazardous materials handling, storage, and use by all Project construction contractors (near term) and occupants (long-term) would ensure that any hazardous materials used on-site would be safely and



appropriately handled to preclude any irreversible damage to the environment that could result if hazardous materials were released from the site.

As discussed in detail under EIR Subsection 4.5, *Energy*, use of the Project for warehouse distribution/logistics or e-commerce/fulfillment would not result in a wasteful, inefficient, or unnecessary consumption of energy. Accordingly, the Project would not result in a significant, irreversible change to the environment related to energy use.

5.3 GROWTH-INDUCING IMPACTS OF THE PROJECT

CEQA requires a discussion of the ways in which the proposed Project could be growth inducing. The CEQA Guidelines identify a project as growth inducing if it would foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment (CEQA Guidelines Section 15126.2(d)). New employees and new residential populations represent direct forms of growth. These direct forms of growth have a secondary effect of expanding the size of local markets and inducing additional economic activity in the area.

A project could indirectly induce growth at the local level by increasing the demand for additional goods and services associated with an increase in population or employment and thus reducing or removing the barriers to growth. This typically occurs in suburban or rural environs where population growth results in increased demand for service and commodity markets responding to the new population of residents or employees.

According to regional population projections included in SCAG's *Connect SoCal*, the City of Moreno Valley's population is projected to grow by 61,100 residents between 2016 and 2040 (approximately 1.2% annual growth). Over this same time period, employment in the City is expected to add 29,400 new jobs (approximately 3.5% annual job growth) (SCAG, 2020c, Table 14). Economic growth would likely take place as a result of the Project's operation as either a warehouse distribution/logistics use or an e-commerce/fulfillment use. The Project's employees (short-term construction and long-term operational) would purchase goods and services in the region, but any secondary increase in employment associated with meeting these goods and services demands is expected to be accommodated by existing goods and service providers and, based on the amount of existing and planned future commercial and retail services available in areas near the Project site, would be highly unlikely to result in any unanticipated, adverse physical impacts to the environment. In addition, the Project would create jobs, approximately 1,000 under the warehouse distribution/logistics option and 2,000 under the e-commerce/fulfillment option, a majority of which would likely be filled by residents of the housing units either already built or planned for development within the City of Moreno Valley and nearby incorporated and unincorporated areas. Accordingly, because it is anticipated that most of the Project's future employees would already be living in the City of Moreno Valley or the larger Inland Empire area, the Project's introduction of employment opportunities on the Project site would not induce substantial growth in the area.

Under CEQA, growth inducement is not considered necessarily detrimental, beneficial, or of little significance to the environment. Typically, growth-inducing potential of a project would be considered significant if it fosters growth or a concentration of population in excess of what is assumed in applicable master plans, land use plans, or in projections made by regional planning agencies such as SCAG. Significant growth impacts



also could occur if a project provides infrastructure or service capacity to accommodate growth beyond the levels currently permitted by local or regional plans and policies. In general, growth induced by a project is considered a significant impact if it directly or indirectly affects the ability of agencies to provide needed public services, or if it can be demonstrated that the potential growth significantly affects the environment in some other way.

The area surrounding the Project site consists of industrial warehouses to the north and northwest, undeveloped parcels of land to the west, undeveloped parcels of land to the east that are within the approved World Logistics Center Specific Plan and are planned for industrial use, and a residential community to the south. Development of the Project site is not expected to place short-term development pressure on abutting properties because these areas, with the exception of the area to the west of the Project site (which is separated from the Project site by an earthen drainage channel), are already built-out, have approvals for future development, or have proposals for future development under review by the City of Moreno Valley. Although it is possible the area to the west of the Project site could be developed with residential uses (consistent with its designation), it would be speculative to suggest that such development would be in response to the Project.

Based on the foregoing analysis, the Project would not result in substantial, adverse growth-inducing impacts.

5.4 EFFECTS FOUND NOT TO BE SIGNIFICANT DURING THE EIR SCOPING PROCESS

CEQA Guidelines Section 15128 requires that an EIR “...contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR.” The Project’s Initial Study and the Notice of Preparation for this EIR, both of which are included in *Technical Appendix A* to this EIR, determined that implementation of the Project for either a warehouse distribution/logistics or e-commerce/fulfillment use would clearly have no potential to result in significant impacts under six (6) environmental issue areas: agriculture and forest resources, mineral resources, population and housing, public services, recreation, and wildfire. Therefore, these issue areas were not required to be analyzed in detail in EIR Section 4.0, *Environmental Analysis*. A brief analysis of the Project’s impacts to agriculture and forest resources, mineral resources, population and housing, public services, recreation, and wildfire is presented below. The thresholds of significance used to evaluate the Project’s potential impacts under each issue area were referenced in the *City of Moreno Valley Rules and Procedures for the Implementation of the California Environmental Quality Act*.

5.4.1 AGRICULTURE AND FORESTRY RESOURCES

Threshold a: *Would the Project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*

According to mapping information available from the California Department of Conservation’s (CDC) Farmland Mapping and Monitoring Program (FMMP), the Project site contains “Farmland of Local Importance” and “Other Land” (CDC, 2016). Accordingly, the Project site does not contain any lands mapped by the FMMP as “Prime Farmland,” “Unique Farmland,” or “Farmland of Statewide Importance” and, thus,



implementation of the Project would not convert such Farmland to a non-agricultural use. No impact would occur.

Threshold b: Would the Project conflict with existing zoning for agricultural use, or Williamson Act contract?

Under existing conditions, the Project site is zoned for “Residential Agriculture 2 (RA2) District” and “Primary Animal Keeping Overlay (PAKO).” Pursuant to the Moreno Valley Municipal Code, RA2 is categorized as a “Residential District.” According to Section 9.03.020(E) Moreno Valley Municipal Code, “[t]he primary purpose of the RA2 district is to provide for suburban life-styles on residential lots larger than are commonly available in suburban subdivisions and to provide for and protect the rural and agricultural atmosphere, including the keeping of animals, that have historically characterized these areas.” The City of Moreno Valley considers the RA2 district to be a residential zone, first and foremost, where limited animal keeping and the growing of crops are permitted but considered ancillary (or secondary) to the primary purpose of the zone to be used for residential development. Accordingly, the Project would not conflict with existing zoning for agricultural use.

As disclosed in the City of Moreno Valley General Plan Final EIR, no land within the City – including the Project site – is under a Williamson Act Contract (Moreno Valley, 2006b, p. 5.8-6). As such, no impact would occur.

Based on the foregoing analysis, implementation of the Project would not conflict with existing zoning for agricultural use or a Williamson Act contract.

Threshold c: Would the Project conflict with existing zoning for, or cause cause rezoning of, forest land (as defined by Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

The Project site is not zoned as forest land, timberland, or Timberland Production, nor is it surrounded by forest land, timberland, or Timberland Production land. According to the City of Moreno Valley Zoning Map, there are no lands located within the City of Moreno Valley that are zoned for forest land, timberland, or timberland zoned Timberland Production. Therefore, the Project has no potential to conflict with any areas currently zoned as forest, timberland, or Timberland Production and would not result in the rezoning of any such lands. As such, no impact would occur.

Threshold d: Would the Project result in the loss of forest land or conversion of forest land to non-forest use?

The Project site does not contain a forest and is not designated as forest land; therefore, the Project would not result in the loss of forest land or the conversion of forest land to non-forest use. As such, no impact would occur.



Threshold e: *Would the Project involve other changes to the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?*

“Farmland” is defined in Section II (a) of Appendix G of the State CEQA Guidelines as “Prime Farmland,” “Unique Farmland” or “Farmland of Statewide Importance” (“Farmland”). As disclosed above in the response the Threshold “a,” the Project would not result in the conversion of Farmland to non-agricultural use.

As discussed in the responses to Threshold “c” and Threshold “d,” the Project would not convert forest land to non-forest use.

5.4.2 MINERAL RESOURCES

Threshold a: *Would the Project result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state?*

Threshold b: *Would the Project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?*

The Project site is not located within an area known to be underlain by regionally- or locally-important mineral resources. Thus, implementation of the proposed Project would not result in the loss of availability of a known mineral resource that would be of value to the region or the residents of the State of California. In addition, the City’s General Plan does not identify any locally-important mineral resource recovery sites on-site or within close proximity to the Project site. (Moreno Valley, 2006b, p. 5.14-2) Accordingly, no impact would occur.

5.4.3 POPULATION AND HOUSING

Threshold a: *Would the Project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of road or other infrastructure)?*

The proposed Project would result in development of the subject property with industrial land uses that would add employment opportunities to the area. It is anticipated that the employment base for both the construction and operational phases of the Project would come from the existing population in the Inland Empire, which comprises western Riverside County and southwestern San Bernardino County. According to the Bureau of Labor Statistics, the Riverside-San Bernardino-Ontario region’s civilian labor force contains approximately 2,026,281 persons with approximately 1,724,301 people employed and an unemployment rate of approximately 14.9% (approximately 301,980 persons) (USBLS, 2020). Accordingly, the Project region already contains an ample supply of potential employees under existing conditions and the Project’s labor demand – estimated to be 1,000 under the warehouse distribution/logistics option and 2,000 under the e-commerce/fulfillment option – is not expected to draw substantial numbers of new residents to the area. Furthermore, approximately 86% of City of Moreno Valley residents commute outside of the City for work (SCAG, 2019, p. 21); therefore, the Project would provide job opportunities closer to home for existing and future Moreno Valley residents.



There are no components of the Project that would reasonably result in indirect or unplanned population growth because the surrounding area is mostly developed under existing conditions or approved for development. The Project would install new/expanded infrastructure; however, this infrastructure would either be master-planned facilities (meaning the facilities would be installed with or without the Project) or would be private facilities for the sole use of the Project (meaning they would not be available for general public use). Accordingly, no significant indirect impacts associated with population growth would result from any Project-related improvements because the Project and its required improvements would not induce substantial growth on surrounding properties.

Based on the foregoing analysis, neither the Project nor any Project-related component would result in substantial, direct, or indirect population growth that would cause a significant direct or indirect impact to the environment. This impact is considered less than significant.

Threshold b: Would the Project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Under existing conditions, the Project site contains a plant nursery with five (5) associated structures (three residences, one ancillary garage, and one small office space), all of which would be removed as part of the Project. The removal of these structures would not result in the displacement of substantial numbers of existing people or housing and would not necessitate the construction of replacement housing elsewhere. Accordingly, impacts would be less than significant.

5.4.4 PUBLIC SERVICES

Threshold a: Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

i) Fire protection?

Fire protection services in the Project area are provided by Moreno Valley Fire Department (MVFD) Station No. 58, which is located approximately 0.5-mile northwest of the Project site. Station No. 58 was opened in 2008 and MVFD stations are designed to provide service to their service area over a 50-year lifespan. Due to the relatively young age of Station No. 58, modifications to the Station are not expected to be needed to provide service to the Project. The Project Applicant would be required to comply with the provisions of the City of Moreno Valley’s Development Impact Fee (DIF) Ordinance (Ordinance No. 695). This ordinance requires a fee payment that the City applies to the funding of public facilities, including fire protection facilities. The City will collect DIF fees for the Project based on building square footage. The Project’s payment of DIF fees, as well as increased tax revenues that would result from development of the Project, would be used by the City to help pay for fire protection services and other public services.

The Project would incorporate fire prevention and fire suppression design features to minimize the potential demand placed on the MVFD. The proposed building would be of concrete tilt-up construction. Concrete is



non-flammable and concrete tilt-up buildings have a lower fire hazard risk than typical wood-frame construction. The Project also would install fire hydrants on-site – the MVFD will review the Project’s site plan to ensure proper spacing of hydrants on-site to provide adequate coverage – and would provide paved primary and secondary emergency access to the Project site to support the MVFD in the event emergency response to the Project site is needed. Lastly, the proposed building would be equipped with fire sprinklers in accordance with California and Moreno Valley building codes. Based on its size and scale, the proposed building would likely feature ESFR (Early Suppression, Fast Response) ceiling mounted fire sprinklers (or a comparable fire suppression system) that exceed the fire protection of traditional sprinkler systems. ESFR high output, high volume systems are located in ceiling spaces as with conventional fire sprinkler systems, but they incorporate large, high-volume, high-pressure heads to provide the necessary fire protection for industrial buildings that may contain high-piled storage. While most other sprinklers are intended to control the growth of a fire, an ESFR sprinkler system is designed to suppress a fire. To suppress a fire does not necessarily mean it will extinguish the fire but rather it is meant to "knock" the fire back down to its source so that it is easier for fire fighters to attack.

Based on the foregoing, the Project would receive adequate fire protection service and would not result in the need for new or physically altered fire protection facilities. Impacts to fire protection facilities would be less than significant.

Threshold a: *Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*

ii) Police protection?

Implementation of the Project would result in an incremental increase in demand for police protection services relative to existing uses on the Project site, but the increase not anticipated to be substantial and would not require or result in the construction of new or physically altered police facilities. The Project Applicant would be required to comply with the provisions of the City of Moreno Valley’s Development Impact Fee (DIF) Ordinance (Ordinance No. 695). This ordinance requires a fee payment that the City applies to the funding of public facilities, including police protection facilities. The City will collect DIF fees for the Project based on building square footage. The Project’s payment of DIF fees, as well as increased tax revenues that would result from development of the Project, would be used by the City to help pay for police protection services and other public services. Based on the foregoing, the proposed Project would receive adequate police protection service, and would not result in the need for new or physically altered police protection facilities. Impacts to police protection facilities would therefore be less than significant.

Threshold a: *Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*



iii) Schools?

Implementation of the Project would not create a direct demand for public school services, as the subject property would contain non-residential uses that would not generate any school-aged children requiring public education. The addition of employment-generating uses on the Project site would assist the City in achieving its goal to provide a better jobs/housing balance within the City (allowing more City residents to work within the City rather than commute elsewhere). Thus, the Project is not expected to draw a substantial number of new residents to the region and would therefore not indirectly generate new school-aged students in the City requiring public education. Because the Project would not directly generate students and is not expected to indirectly draw students to the area, the Project would not cause or contribute to a need to construct new or physically altered public school facilities. Although the Project would not create a demand for additional public school services, the Project Applicant would be required to contribute development impact fees to the Moreno Valley Unified School District in compliance with California Senate Bill 50 (Greene), which allows school districts to collect fees from new developments to offset the costs associated with increasing school capacity needs (CA Legislative Information, 1998). Mandatory payment of school fees would be required prior to the issuance of a building permit. With mandatory payment of fees in accordance with California Senate Bill 50, impacts to public schools would be less than significant.

Threshold a: *Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*

iv) Parks?

As discussed under Subsection 5.4.5 below, the Project would not create a demand for public park facilities and would not result in the need to modify existing or construct new park facilities. Accordingly, implementation of the proposed Project would not adversely affect any park facility.

Threshold a: *Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*

v) Other public facilities?

The Project is not expected to result in a demand for other public facilities/services, including libraries, community recreation centers, post offices, and animal shelters. As such, implementation of the Project would not adversely affect other public facilities or require the construction of new or modified public facilities and no impact would occur.



5.4.5 RECREATION

Threshold a: *Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*

The Project does not include any type of residential use or other land use that may generate a population that would increase the use of existing neighborhood and regional parks or other recreational facilities. Accordingly, implementation of the proposed Project would not result in the increased use or substantial physical deterioration of an existing neighborhood or regional park.

Threshold b: *Does the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?*

The Project does not include the construction of any new off-site recreation facilities and the Project would not expand any existing off-site recreational facilities. Therefore, environmental effects related to the construction or expansion of off-site recreational facilities would not occur. The Project does include the construction of an on-site pedestrian trail abutting Redlands Boulevard. Environmental impacts associated with the construction of the proposed on-site trail segment are evaluated throughout this EIR. Where significant impacts are identified, feasible and enforceable mitigation measures are imposed on the Project to reduce impacts to the maximum practical effect. There are no significant environmental impacts specifically related to construction of the on-site trail segment.

5.4.6 WILDFIRE

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:

Threshold a: *Would the Project substantially impair an adopted emergency response plan or emergency evacuation plan?*

Threshold b: *Due to slope, prevailing winds, and other factors, would the Project exacerbate wildfire risks, and thereby expose Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?*

Threshold c: *Would the Project require installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?*

Threshold d: *Would the Project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?*

The Project site is not located in or near state responsibility areas or on or near lands classified as very high fire hazard severity zones (CalFire, 2007). Therefore, the Project would not exacerbate wildfire hazard risks



or expose people or the environment to adverse environmental effects related to wildfires and no impact would occur.



6.0 ALTERNATIVES

Pursuant to CEQA Guidelines Section 15126.6(a):

An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible. The lead agency is responsible for selection of a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason.

As discussed in Section 4.0 of this EIR, the Project would result in significant adverse environmental effects under three (3) environmental issue areas that cannot be mitigated to below a level of significance after the implementation of Project design features, mandatory regulatory requirements, and feasible mitigation measures. The unavoidable significant impacts are:

- Aesthetics: Implementation of the Project would mostly or completely block views of Reche Canyon and the Badlands (and the San Bernardino Mountains beyond) from the segment of Encelia Avenue that abuts the Project site on the south (west of Shubert Street). Also, implementation of the Project would mostly or completely block scenic views of Mount Russell and its foothills from the segment of Eucalyptus Avenue that abuts the Project site. This would be a significant and unavoidable direct impact.
- Air Quality (Air Quality Management Plan Conflict): The Project would emit air pollutants (NO_x) that would contribute to a delay in the attainment of federal and State ozone standards in the SCAB. Because the Project requires a General Plan Amendment, it also would exceed the growth projections contained in SCAQMD's 2016 AQMP. As such, the Project would conflict with and could obstruct implementation of the AQMP. Project impacts due to a conflict with the SCAQMD 2016 AQMP would be significant and unavoidable on both a direct and cumulative basis.
- Air Quality (Criteria Pollutant Emissions): After the application of Project design features, mandatory regulatory requirements, and feasible mitigation measures, Project-related NO_x emissions during long-term operation of the Project would remain above the applicable SCAQMD regional thresholds. Accordingly, Project-related emissions would not meet SCAQMD air quality standards and contribute to the non-attainment of ozone standards in the SCAB. Therefore, Project operational-related impacts due to NO_x emissions would be significant and unavoidable on a direct and cumulative basis.



- Greenhouse Gas Emissions (GHG Emissions Generation): Project-related GHG emissions would exceed the applicable SCAQMD significance threshold for GHG emissions and would result in a cumulative impact.

6.1 **ALTERNATIVES UNDER CONSIDERATION**

CEQA Guidelines Section 15126.6(e) requires that an EIR include an alternative that describes what would reasonably be expected to occur on the Project site in the foreseeable future if the Project were not approved, based on current plans and consistent with available infrastructure and community services (i.e., “No Project” Alternative). For projects that include a revision to an existing land use plan, the “No Project” Alternative may be the continuation of the existing land use plan into the future. For projects other than a land use plan (for example, a development project on an identifiable property), the “No Project” Alternative is considered to be a circumstance under which the project does not proceed (CEQA Guidelines Section 15126(e)(3)(A-B). Because the Project includes both a land use plan amendment (and change of zone) and a site-specific development proposal, this EIR includes two “No Project” Alternative analyses: (1) The scenario where the Project does not proceed and the Project Site remains in its existing condition is evaluated as the “No Development Alternative,” and (2) The potential scenario where the Project Site is used in accordance with the City’s existing land use plan (the City of Moreno Valley General Plan) is evaluated as the “No Project Alternative.”

In compliance with CEQA Guidelines Section 15126.6(a), an EIR must describe “a range of reasonable alternatives to the project, or to the location of the project which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project.” The EIR need not consider every conceivable alternative; rather it must consider a reasonable range of potentially feasible alternatives to the project, or to the location of the project, which would avoid or substantially lessen significant effects of the project, even if “these alternatives would impede to some degree the attainment of the project objectives, or would be more costly” (CEQA Guidelines Section 15126.6(b)).

The following alternatives are analyzed in this Section:

6.1.1 **NO DEVELOPMENT ALTERNATIVE**

The No Development Alternative considers no development on the Project site beyond what occurs on the site under existing conditions. Under this Alternative, the approximately 8.5-acre commercial plant nursery (Adam Hall’s Plant Nursery) with associated structures (i.e., an office building and shade and storage structures), three residential buildings with associated accessory buildings and uses would remain on the southeast corner of the Project site for the foreseeable future. The remaining portions of the Project site would also remain undeveloped and would be subject to routine maintenance (i.e., discing) for weed abatement. This Alternative was used to compare the environmental effects of the Project with an alternative that would leave the Project site in its existing state.

6.1.2 **NO PROJECT ALTERNATIVE**

The No Project Alternative considers redevelopment of the Project site in accordance with the site’s existing land use designation, “Residential: Max 2 du/ac (R2)” and the site’s existing zoning designation, “Residential



Agriculture, 2 du/ac (RA2),” which allows up to 2.0 dwelling units per net acre. Under this Alternative, the Project site would be developed as a master-planned residential community with 145 single-family dwelling units on minimum 20,000 s.f. lots. The extent of physical ground disturbance is expected to be the same as would occur under the proposed Project. This Alternative was used to compare the environmental effects of the Project against a development proposal that conforms to the land use standards and development regulations prescribed by City of Moreno Valley General Plan and Municipal Code under the Project site’s existing land use and zoning designations.

6.1.3 REDUCED BUILDING AREA ALTERNATIVE

The Reduced Building Area Alternative considers a proposal where the Project site would be redeveloped with two separate uses: a light industrial building and an outdoor industrial storage area. Under this Alternative, a 965,000 s.f. light industrial building would be developed on the eastern portion of the Project site and a 20-acre outdoor industrial storage area would be developed on the western portion of the Project site. This alternative was used to evaluate a scenario that would reduce the total building area on the Project site relative to the Project but still allow productive industrial use of the entire Project site.

6.2 ALTERNATIVES CONSIDERED AND REJECTED

An EIR is required to identify any alternatives that were considered by the Lead Agency but were rejected as infeasible. Among the factors described by CEQA Guidelines Section 15126.6 in determining whether to exclude alternatives from detailed consideration in the EIR are: a) failure to meet most of the basic project objectives, b) infeasibility, or c) inability to avoid significant environmental impacts. With respect to the feasibility of potential alternatives to the Project, CEQA Guidelines Section 15126.6(f)(1) notes:

“Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries...and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site...”

In determining an appropriate range of alternatives to be evaluated in this EIR, a number of possible alternatives were initially considered and, for a variety of reasons, rejected. Alternatives were rejected because either: 1) they could not accomplish the basic objectives of the Project, 2) they would not have resulted in a reduction of significant adverse environmental impacts, or 3) they were considered infeasible to construct or operate. A summary of the alternatives that were considered but rejected are described below.

6.2.1 ALTERNATIVE SITES

CEQA does not require that an analysis of alternative sites be included in an EIR. However, if the surrounding circumstances make it reasonable to consider an alternative site, then an alternative sites analysis should be considered and analyzed in the EIR. In making the decision to include or exclude an analysis of an alternative site, the “key question and first step in analysis is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need to be considered for inclusion in the EIR” (CEQA Guidelines Section 15126.6(f)(2)).



Historic activities on the Project site have resulted in pervasive, ongoing disturbance over the last 80+ years. The Project site does not contain any natural/native habitat and the Project site contains an active plant nursery (Adam Hall's Plant Nursery) with associated structures (i.e., an office building, shade and storage structures), three occupied residential buildings with associated garages and storage sheds and one swimming pool/hot tub. Based on review of aerial photography and the City of Moreno Valley General Plan Land Use Map, there are no other properties available for purchase by the Project Applicant in the City of Moreno Valley with similar accessibility to the regional goods movement system (see discussion in paragraph below), that are large enough to support the proposed Project, and that have fewer developmental and environmental constraints than the Project site evaluated in this EIR.

Furthermore, development of the Project in an alternative location would likely result in similar environmental impacts as would occur with implementation of the Project at its proposed location because the Project's significant and unavoidable impacts are related to vehicles traveling to/from the Project site (and not related to the presence of sensitive resources on the Project site or its location near sensitive receptors). Vehicle-related impacts are a direct reflection of the Project's expected operational characteristics as either a warehouse distribution/logistics or e-commerce/fulfillment facility, regardless of the property where the Project is located. In fact, if an alternative site were selected for the Project that was located farther from major arterial roads that are designated truck routes, like Eucalyptus Avenue for example, or regional freeways like SR-60, than the Project site, the severity of the Project's air quality impacts related to tailpipe emissions (and potentially transportation impacts) would increase as miles traveled for vehicles going to/from the Project would increase.

In light of the foregoing reasons, a more detailed analysis of alternative sites is not warranted.

6.3 ALTERNATIVE ANALYSIS

The discussion on the following pages compares the environmental impacts expected from each alternative considered by the Lead Agency relative to the impacts of the Project. A conclusion is provided for each topic as to whether the alternative results in one of the following: (1) reduction of elimination of the Project's impact, (2) a greater impact than would occur under the Project, (3) the same impact as the Project, or (4) a new impact in addition to the Project's impacts. Table 6-1 at the end of this section compares the impacts of the alternatives against those of the Project and identifies the ability of the alternative to meet the basic objectives of the Project. As previously listed in EIR Section 3.0, the Project's basic objectives are:

- A. To expand economic development, facilitate job creation, and increase the tax base for the City of Moreno Valley by establishing new industrial development adjacent to established and planned industrial areas.
- B. To attract employment-generating businesses to the City of Moreno Valley to reduce the need for members of the local workforce to commute outside the area for employment, thereby improving the jobs-housing balance in the City.
- C. To develop a Class A speculative light industrial building in Moreno Valley that is designed to meet contemporary industry standards and be economically competitive with similar industrial buildings in the local area and region.



- D. To attract businesses that can expedite the delivery of essential goods to consumers and businesses in Moreno Valley and beyond the City boundary.
- E. To develop a project that has architectural design and operational characteristics that complement other existing and planned buildings in the immediate vicinity and minimize conflicts with other nearby land uses.
- F. To develop a light industrial building in close proximity to designated truck routes and the State highway system to avoid or shorten truck-trip lengths on other roadways.
- G. To develop a property that has access to available infrastructure, including roads and utilities.

6.3.1 NO DEVELOPMENT ALTERNATIVE

The No Development Alternative allows decision-makers to compare the environmental impacts of approving the Project to the environmental impacts that would occur if the property were left in its existing conditions for the foreseeable future. Under existing conditions, the Project site is entirely disturbed by historic land uses/activities but is mostly undeveloped, with the exception of an active plant nursery (Adam Hall's Plant Nursery) with associated structures (i.e., an office building, shade and storage structures), three residential buildings with associated garages and storage sheds and one swimming pool/hot tub. All three of these residential buildings are occupied under existing conditions. Ornamental landscaping surrounds the three (3) residences on the Project site and the remaining undeveloped area consists of ruderal/weedy vegetation. Refer to the description of the Project site's existing physical conditions in Section 2.0 of this EIR.

A. *Aesthetics*

The Project site does not contain any unique aesthetic resources, nor does it serve as a prominent scenic vista. Under the No Development Alternative, the visual character and quality of the Project site would be maintained in its existing condition. No new structures, landscaping, or lighting would be introduced on the Project site. The No Development Alternative would not have the potential to conflict with the character or quality of existing and planned development surrounding the Project site and would not create a new source of substantial light or glare that would impact nighttime views in the area. The aesthetic impact of leaving the Project site in its existing condition would be less than significant as compared to the Project's aesthetics impact.

B. *Air Quality*

The Project site currently contains a plant nursery that generates nominal amounts of air pollution associated with typical business operations (i.e., tailpipe emissions from vendor deliveries and customers traveling to and from the Project site). The Project site also contains three existing residences that produce nominal amounts of air pollution associated with routine residential activities. The No Development Alternative would leave the Project site in its existing condition and would retain these uses (and nominal amounts of air pollution). Notwithstanding, the No Development Alternative would avoid the Project's significant and unavoidable impact related to operational NO_x emissions.



C. *Biological Resources*

The No Development Alternative would leave the Project site in its existing condition, which includes periodic disturbances related to the plant nursery, three occupied residential structures, weed abatement activities, and other routine, on-site maintenance activities. No grading would occur under this Alternative and there would be no potential impacts to special status plants, animals, or sensitive vegetation communities on the Project site. Although there are mitigation identified in EIR Subsection 4.3 that would reduce the Project's direct, indirect, and cumulatively considerable impacts to biological resources to below a level of significance, implementation of the No Development Alternative would avoid impacts to biological resource associated with the Project and would require no mitigation.

D. *Cultural Resources*

The No Development Alternative would leave the Project site in its existing condition, which includes periodic ground disturbances related to the plant nursery, three occupied residential structures, weed abatement activities, and other routine, on-site maintenance activities. The No Development Alternative would leave the Project site in its existing condition; no grading would occur under this Alternative and there would be no potential impacts to subsurface archeological resources that may exist beneath the ground surface. Therefore, selection of this Alternative would avoid all site disturbances on the Project site and the Project's less-than-significant impacts to cultural resources would not occur.

E. *Energy*

Under the No Development Alternative, the existing plant nursery would continue to operate and the three residential structures would continue to be occupied; therefore, there would be nominal demand for near-term and long-term electricity and fuel use on the site. Selection of this alternative would reduce the Project site's near- and long-term energy use that would otherwise result in the Project was developed.

F. *Geology and Soils*

The No Development Alternative would leave the Project site in its existing condition, which include periodic ground disturbances related to the plant nursery, three occupied residential structures, weed abatement activities, and other routine, on-site maintenance activities. These activities all have the potential to result in water and/or wind erosion of exposed soils that would not occur with the Project. The Project site would remain unoccupied under the No Development Alternative with the exception of the existing plant nursery and the three residential structures; accordingly, there would be no potential for this Alternative to expose people or structures to safety risks associated with geologic hazards.

G. *Greenhouse Gas Emissions*

Under the No Development Alternative, no development would occur on the Project site. The plant nursery and the three residential structures on-site would continue to be occupied. Therefore, with the exception of ongoing nominal GHG emissions associated with activities at plant nursery and the three residential structures, there would be no new sources of near-term or long-term GHG emissions under the No Development Alternative. Selection of this alternative would avoid all of the Project's near- and long-term effects associated with GHG emissions.



H. Hazards and Hazardous Materials

Because no development would occur under the No Development Alternative, no new hazards would be introduced to the Project site. Routine weed abatement activities would continue to occur on the Project site to remove dry/dead vegetation that has the potential to pose a fire hazard, as required by the City of Moreno Valley. Selection of this Alternative would reduce the Project's less-than-significant impacts related to hazards and hazardous materials.

I. Hydrology and Water Quality

No changes to existing hydrology and drainage conditions would occur under the No Development Alternative. No stormwater drainage improvements would be constructed on or adjacent to the Project site and rainfall would be discharged from the Project site as sheet flow, as occurs under existing conditions. Under this alternative, the stormwater leaving the Project site would not be treated to minimize waterborne pollutants and would continue to contain sediment and other potential pollutants, as occurs under existing conditions. However, the No Development Alternative would generate fewer water pollutants due to the reduction in the intensity of development on-site. The No Development Alternative would result in a neutral impact to hydrology. In contrast to the Project, under this Alternative, impacts would remain less than significant.

J. Land Use and Planning

The No Development Alternative would not result in any new development that would indirectly result in environmental impacts due to a conflict with an existing land use plan. Accordingly, selection of this alternative would result in no impacts to land use and planning.

K. Noise

Under the No Development Alternative, no new sources of noise would be introduced on the Project site. With the exception of noise resulting from the plant nursery, three occupied residential structures, and routine site maintenance activities (e.g., discing), the No Development Alternative would not produce on-site noise. Additionally, because the Project site would not be developed and no new traffic trips would be generated, the No Development Alternative would not contribute to an incremental increase in area-wide traffic noise levels. Accordingly, in contrast to the Project, selection of this Alternative would result in less-than-significant impacts to noise.

L. Transportation

The No Development Alternative would not generate any new daily traffic. Accordingly, this alternative would avoid all of the Project's impacts to transportation.

M. Tribal Cultural Resources

The No Development Alternative would leave the Project site in its existing condition, which includes periodic ground disturbances related to the plant nursery, three occupied residential structures, weed abatement activities and other routine, on-site maintenance activities. The No Project Alternative would leave the Project site in its existing condition. No grading would occur under this Alternative and there would be no potential impacts to subsurface tribal cultural resources that may exist beneath the ground surface. Therefore, selection



of this Alternative would avoid all site disturbances on the Project site and the Project's less-than-significant impacts to tribal cultural resources would not occur.

N. Utilities and Service Systems

No new domestic water, sewer, or stormwater drainage facilities would be needed for the No Development Alternative, and there would be no demand for domestic water or wastewater treatment services. Also, this Alternative would not demand solid waste collection and disposal services. Neither the Project nor the No Development Alternative would result in significant or cumulatively-considerable impacts to utilities and service systems. Nonetheless, selection of this Alternative would avoid all of the Project's demand placed on utilities and service systems.

O. Conclusion

Implementation of the No Development Alternative would result in no physical environmental impacts to the Project site beyond those that have historically occurred on the Project site. All significant effects of the Project would be avoided by the selection of this Alternative.

The No Development Alternative would fail to meet all of the Project's objectives.

6.3.2 NO PROJECT ALTERNATIVE

The No Project Alternative would develop the Project site as a master-planned residential community with 145 single-family dwelling units on minimum 20,000 s.f. lots. The No Project Alternative would be consistent with the Project site's General Plan Land Use designation of "Residential: Max 2 du/ac (R2)" and the City's Zoning designation of Residential Agriculture 2 (RA2) District, which allows single-family residential on the Project site up to a maximum density of 2.0 dwelling units per net acre. This Alternative would not require a General Plan Amendment or Change of Zone (both of which are required for the Project).

A. Aesthetics

Compared to the Project, impacts would be reduced under the No Project Alternative. The No Project Alternative would construct residences on the Project site as compared to the industrial-type structures and improvements proposed by the Project. The No Project Alternative would be visually compatible with the existing residential land uses located south of the Project site. The No Project Alternative would not result in a significant adverse effect related to visual character or quality.

B. Air Quality

The No Project Alternative would result in construction activities across the entire Project site, similar to the Project. Accordingly, construction-related air quality effects during demolition, site preparation, and grading would be similar to the Project. However, the No Project Alternative is expected to result in the construction of less building area than the Project and also would result in reduced paving activities as compared to the Project. This Alternative is expected to result in reduced air pollutant emissions during construction relative to the Project due to the reduced building area and the types of buildings (i.e., residential) that would be



constructed; thus, compared to the Project, air quality impacts would be reduced under the No Project Alternative.

Because the No Project Alternative would develop the Project site with land uses that are not expected to generate or attract as much traffic as the Project (and would avoid all of the Project's heavy-duty truck traffic), this Alternative is expected to reduce criteria pollutant emissions during operations relative to the Project. This Alternative is expected to reduce – and, possibly, avoid – the Project's significant and unavoidable impact during operations related to NO_x emissions. This Alternative also would eliminate the Project's less-than-significant contribution to local excess carcinogenic and non-carcinogenic health risk hazards due to the elimination of operational heavy-duty truck traffic that emits diesel particulate matter.

Like the Project, the No Project Alternative would generate odors during short-term construction activities (e.g., diesel equipment exhaust, architectural coatings, asphalt) and long-term operation (e.g., diesel exhaust). However, and similar to the Project, these odors would occur intermittently, be of short-term duration, and would not be substantial. Long-term operation of this Alternative would not create objectionable odors affecting a substantial number of people and impacts would be less than significant with compliance with mandatory regulatory requirements.

C. Biological Resources

The No Project Alternative would develop the entire Project site and would result in identical impacts to biological resources as the Project. The No Project Alternative would require similar mitigation as the Project and, after mitigation, both the No Project Alternative and the Project would result in less-than-significant impacts to biological resources.

D. Cultural Resources

The No Project Alternative would develop the entire Project site and would result in identical impacts to cultural resources as the Project. The No Project Alternative would require similar mitigation as the Project and, after mitigation, both the No Project Alternative and the Project would result in less-than-significant impacts to cultural resources.

E. Energy

Because the No Project Alternative would result in less building area being developed on the Project site and would reduce the intensity of site operations, the No Project Alternative is expected to require less energy to construct and operate than the Project and, therefore, result in a reduction of energy usage as compared to the Project. Additionally, because the No Project Alternative would generate fewer daily vehicle trips than the Project, this Alternative would result in a lower demand for transportation energy resources than the Project. Notwithstanding, like the Project, the No Project Alternative would result in a less-than-significant impact.

F. Geology and Soils

This Alternative would disturb the same physical area as the Project and would, therefore, have the same potential for soil erosion during the construction phase as the Project. Soil erosion impacts would be less than



significant under both the Project and this alternative due to mandatory compliance with federal, State, and local water quality standards. The No Project Alternative would be required to comply with the same mandatory regulatory requirements as the Project to preclude substantial hazards associated with seismic ground shaking. The No Project Alternative would result in a similar, less-than-significant impact to geology and soils as the Project.

G. Greenhouse Gas Emissions

Because the No Project Alternative would result in less building area than the Project, the No Project Alternative is expected to require less energy to construct and operate than the Project and, therefore, result in a reduction of non-mobile source GHG emissions as compared to the Project. Additionally, the No Project Alternative would generate fewer VMT than the Project and would reduce the amount of mobile source GHG emissions. The No Project Alternative would reduce the Project's significant and unavoidable GHG emissions; however, because the SCAQMD significance threshold for residential uses is substantially lower (3,000 MTCO_{2e}) than for industrial uses (10,000 MTCO_{2e}), and the No Project Alternative would develop the Project site with residential uses that would generate GHG emissions primarily from vehicles (and no feasible mitigation exists to mitigate these impacts), impacts would likely remain significant and unavoidable.

H. Hazards and Hazardous Materials

Neither implementation of the No Project Alternative nor the Project would result in a significant impact related to hazards or hazardous materials. Land uses that would occur on-site under the No Project Alternative would have a lesser potential to handle and store hazardous materials than the Project. With mandatory regulatory compliance, both the No Project Alternative and the Project would pose a less-than-significant hazard to the public or the environment related to the use, handling, storage, and/or transport of hazardous materials. Impacts from the No Project Alternative would be reduced compared to the Project.

I. Hydrology and Water Quality

Neither the Project nor the No Project Alternative would result in substantial alterations to the drainage pattern of the Project site or would result in substantial erosion effects. Accordingly, implementation of the Project and the No Project Alternative would both result in less-than-significant impacts to existing drainage patterns.

During construction, potential hydrology and water quality effects on the Project site would be similar under both the No Project Alternative and the Project due to this Alternative and the Project both disturbing the same physical area. Like the Project, the No Project Alternative would be required to implement a Stormwater Pollution Prevention Plan (SWPPP) to ensure that stormwater runoff during construction does not contain substantial pollutant concentrations. Both the Project and the No Project Alternative would result in similar, and less-than-significant, construction impacts to hydrology and water quality.

In the long-term, potential hydrology and water quality effects on the Project site would be similar under both the No Project Alternative and the Project. The Project would likely generate more pollutants on-site than the No Project Alternative due to the greater impervious surface coverage and increased number of vehicles that would occur with implementation of the Project; however, both the No Project Alternative and the Project would be required to implement a drainage plan and a WQMP. Similar to the Project, the No Project



Alternative would be required to implement a drainage plan to ensure that stormwater runoff is conveyed to local and regional stormwater drainage facilities with adequate capacity to handle runoff flows from the Project site. Additionally, similar to the Project, the No Project Alternative would be required to implement a long-term WQMP to ensure that stormwater runoff leaving the site does not contain substantial pollutant concentrations. The Project and the No Project Alternative would result similar operational hydrology and water quality impacts. Impacts under the No Project Alternative and the Project would be less than significant.

J. Land Use and Planning

The No Project Alternative would develop the Project site in accordance with the City of Moreno Valley General Plan. As such, there would be no conflicts with applicable land use plans, policies, or regulations resulting in significant environmental effects. Comparatively, the Project proposes a General Plan Amendment to address consistency between the proposed land uses and the General Plan and other plans, policies, and regulations that rely on General Plan buildout projections. Both the No Project Alternative and the Project would result in less-than-significant land use and planning impacts.

K. Noise

Noise associated with this Alternative would occur during short-term construction activities and under long-term operation. Under both the construction and operational scenarios, the No Project Alternative is expected to reduce the Project's less-than-significant noise impacts due to the decrease in the intensity of construction activities. The No Project Alternative would develop the Project site with residential uses which generate less noise and less traffic than the industrial uses proposed by the Project. Thus, the No Project Alternative would result in decreased operational noise due to the residential on-site operational activities and decrease in the amount of traffic traveling to and from the Project site.

L. Transportation

The No Project Alternative is not anticipated to result in a net increase in VMT per capita in the City of Moreno Valley and, accordingly, would result in less-than-significant transportation impacts (which is the same conclusion drawn for the Project).

M. Tribal Cultural Resources

The No Project Alternative would develop the entire Project site and would result in identical impacts to tribal cultural resources as the Project. The No Project Alternative would require similar mitigation as the Project and, after mitigation, both the No Project Alternative and the Project would result in less-than-significant impacts to tribal cultural resources.

N. Utilities and Service Systems

Like the proposed Project, the No Project Alternative would result in a demand for public utility and service systems and would result in the construction of domestic water, sewer, and stormwater drainage improvements. The No Project Alternative would result in a demand for domestic water, waste water treatment services, and solid waste collection and disposal services that is higher than what occurs at the Project site under existing



conditions; but this alternative's overall demand would be less than the Project's demand for the same services. Impacts would be less than significant.

O. Conclusion

The No Project Alternative would reduce and likely avoid the Project's significant and unavoidable impacts to air quality and minimize the Project's significant and unavoidable GHG emission impacts, however, GHG emission impacts would remain significant and unavoidable. The No Project Alternative would reduce the Project's less-than-significant impacts to aesthetics, energy, hazards and hazardous materials, noise, transportation (other intersections and road segments), and utilities and service systems. All other impacts from the No Project Alternative would be similar to the Project.

The No Project Alternative would not meet any of the Project's objectives.

6.3.3 REDUCED BUILDING AREA ALTERNATIVE

The Reduced Building Area Alternative considers a proposal where the Project site would be redeveloped with two separate uses: a light industrial building and an outdoor industrial storage area. Under this Alternative, approximately 52 acres on the eastern portion of the Project site – with frontages along Eucalyptus Avenue, Redlands Boulevard, and Encelia Avenue – would be developed with an approximately 965,000 s.f. light industrial building (including related site improvements such as truck loading/unloading areas and parking, passenger vehicle parking, landscaping, signage, and public utility connections). The light industrial building would be used warehouse distribution/logistics or fulfillment/e-commerce land uses, similar to the Project. This alternative also provides for approximately 20 acres on the western portion of the Project site – with frontages along Eucalyptus Avenue and Encelia Avenue and abutting the Quincy Channel – to be used as a paved outdoor storage area with landscaping and screen walls abutting Eucalyptus Avenue and Encelia Avenue to hide the storage area from public view. The outdoor storage area would be used for heavy truck (truck-tractor) or trailer parking. This Alternative was selected by the Lead Agency to evaluate a scenario that would reduce the total building area on the Project site relative to the Project but still allow productive industrial use of the entire Project site.

A. Aesthetics

Under Reduced Building Area Alternative, the eastern portion of the Project site would look similar to the Project, just at a reduced scale while the western portion of the site would be used for outdoor industrial storage. The outdoor industrial storage area would feature tall (approx. 10-14 feet tall) solid screen walls and dense landscaping abutting Eucalyptus Avenue and Encelia Avenue. Although the tall screen wall for the outdoor storage area would contrast with the existing visual environment along Encelia Avenue to a greater degree than the Project, this alternative would not be incompatible with the surrounding area or visually offensive. Overall, the Reduced Building Area Alternative's effect on aesthetics would be comparable the Project and would remain significant.



B. Air Quality

Under this Alternative, the overall duration of construction would be reduced as compared to the Project, due to the reduction of approximately 364,000 s.f. of building area (although the reduction on building area under the Reduced Building Area Alternative would be partially offset by this alternative's requirement for substantially more paving). As such, the total amount of air pollutant emissions generated during the construction phase would be reduced under this Alternative as compared to the Project. However, the peak daily intensity of construction activities at the Project site would be similar under both this Alternative and the Project because both would: 1) disturb the same physical area; 2) utilize the same types of construction equipment; and 3) require the same types of construction activities. Therefore, the total daily emissions during the construction phase would be less than significant and similar to the Project.

Because the Reduced Building Area Alternative would result in less building floor area than the Project, this Alternative is expected to require less energy to operate than the Project and, therefore, would result in a reduction of non-mobile source air quality emissions as compared to the Project. The Reduced Building Area Alternative would generate a similar amount of mobile source air pollutant emissions as the Project from heavy truck traffic due to comparable total daily traffic, but it would reduce mobile source air quality emissions from passenger vehicles due to a reduction in employees on-site. In total, the Reduced Building Area Alternative would slightly reduce the Project's operational regional air quality emissions; however, impacts would be significant and unavoidable (as is the case with the Project).

Because heavy truck trip traffic would be similar between the Reduced Building Area Alternative and the Project, the Reduced Building Area Alternative would result in similar – and less than significant – carcinogenic and non-carcinogenic health risk hazards as the Project (due to a similar amount of diesel particulate matter emissions).

Like the Project, the Reduced Building Area Alternative would generate odors during short-term construction activities (e.g., diesel equipment exhaust, architectural coatings, asphalt) and long-term operation (e.g., diesel exhaust). However, and similar to the Project, these odors would occur intermittently, be of short-term duration, and would not be substantial. Long-term operation of this Alternative would not create objectionable odors affecting a substantial number of people and impacts would be less than significant with compliance with mandatory regulatory requirements.

C. Biological Resources

The Reduced Building Area Alternative would develop the entire Project site and would result in identical impacts to biological resources as the Project. The Reduced Building Area Alternative would require similar mitigation as the Project and, after mitigation, both the Reduced Building Area Alternative and the Project would result in less-than-significant impacts to biological resources.

D. Cultural Resources

The Reduced Building Area Alternative would develop the entire Project site and would result in identical impacts to cultural resources as the Project. The Reduced Building Area Alternative would require similar



mitigation as the Project and, after mitigation, both the Reduced Building Area Alternative and the Project would result in less-than-significant impacts to cultural resources.

E. Energy

Because the Reduced Building Area Alternative would result in less building floor area than the Project, the Reduced Building Area Alternative is expected to require less energy to construct and operate than the Project and, therefore, would result in a reduction of energy usage as compared to the Project. Additionally, the Reduced Building Area Alternative would generate fewer daily passenger vehicle trips than the Project and would reduce transportation energy demands. The Reduced Building Area Alternative would result in a less-than-significant impact, which is the same conclusion drawn for the Project.

F. Geology and Soils

This alternative would disturb the same physical area as the Project and would, therefore, have the same potential for soil erosion during the construction phase as the Project. Soil erosion impacts would be less than significant under both the Project and this Alternative due to mandatory compliance with federal, State, and local water quality standards. The Reduced Building Area Alternative would be required to comply with the same mandatory regulatory requirements as the Project to preclude substantial hazards associated with seismic ground shaking and geologic hazards. The Reduced Building Area Alternative would result in a similar, less-than-significant impact to geology and soils as the Project.

G. Greenhouse Gas Emissions

Because the Reduced Building Area Alternative would result in less building floor area than the Project, the Reduced Building Area Alternative is expected to require less energy to construct and operate than the Project and, therefore, would result in a reduction of non-mobile source GHG emissions as compared to the Project. Additionally, the Reduced Building Area Alternative would result in an incremental reduction in mobile source GHG emissions due to a reduction daily passenger vehicle traffic. In total, the Reduced Building Area Alternative would slightly reduce the Project's GHG emissions; however, impacts would be significant and unavoidable (as is the case with the Project).

H. Hazards and Hazardous Materials

Neither implementation of the Reduced Building Area Alternative nor the Project would result in a significant impact related to hazards or hazardous materials. Land uses that would occur on-site under the Reduced Building Area Alternative would have a similar potential to handle and store hazardous materials than the Project. With mandatory regulatory compliance, both the Reduced Building Area Alternative and the Project would pose a less-than-significant hazard to the public or the environment related to the use, handling, storage, and/or transport of hazardous materials.

I. Hydrology and Water Quality

Neither the Project nor the Reduced Building Area Alternative would result in substantial alterations to the drainage pattern of the site or would result in substantial erosion effects. Accordingly, implementation of the



Project and the Reduced Building Area Alternative would both result in less-than-significant impacts to existing drainage patterns.

During construction, potential hydrology and water quality effects on the Project site would be similar under both the Reduced Building Area Alternative and the Project due to this alternative and the Project both disturbing the same physical area. Like the Project, the Reduced Building Area Alternative would be required to implement a SWPPP to ensure that stormwater runoff during construction does not contain substantial pollutant concentrations. Both the Project and the Reduced Building Area Alternative would result in less-than-significant construction impacts to hydrology and water quality.

In the long-term, potential hydrology and water quality effects on the Project site would be similar under both the Reduced Building Area Alternative and the Project due to this alternative and the Project both providing a similar amount of non-pervious surfaces. Like the Project, the Reduced Building Area Alternative would be required to implement a drainage plan to ensure that stormwater runoff is conveyed to local and regional stormwater drainage facilities with adequate capacity to handle runoff flows from the Project site. Additionally, like the Project, the Reduced Building Area Alternative would be required to implement a long-term WQMP to ensure that stormwater runoff leaving the Project site does not contain substantial pollutant concentrations. Both the Project and the Reduced Building Area Alternative would result in less-than-significant operational impacts to hydrology and water quality.

J. Land Use and Planning

Both this Alternative and the Project would require a General Plan Amendment and a Change of Zone to develop the Project site with industrial land uses. The Reduced Building Area Alternative would result in identical – and less than significant – land use and planning impacts when compared to the Project.

K. Noise

Noise associated with this Alternative would occur during short-term construction activities and under long-term operation. The types of daily construction activities conducted on the Project site would be similar (and less than significant) under both the Reduced Building Area Alternative and the Project, although the length of construction activities would be slightly decreased under this alternative as less building floor area would be constructed on-site. Therefore, it is anticipated that the total duration of noise impacts during the building construction phase would be slightly decreased under this alternative as compared to the Project and impacts would be less than significant. Under long-term operational conditions, noise impacts from operations on the Project site (i.e., stationary noise) would be similar (and less than significant) relative to the Project due to relatively similar operational practices (i.e., cargo loading/unloading activities) and similar daily heavy truck traffic volumes.

L. Transportation

The Reduced Building Area Alternative is not anticipated to result in a net increase in VMT per employee in the City of Moreno Valley and, accordingly, would result in less-than-significant transportation impacts (which is the same conclusion drawn for the Project).



M. Tribal Cultural Resources

The Reduced Building Area Alternative would develop the entire Project site and would result in identical impacts to tribal cultural resources as the Project. The Reduced Building Area Alternative would require similar mitigation as the Project and, after mitigation, both the Reduced Building Area Alternative and the Project would result in less-than-significant impacts to tribal cultural resources.

N. Utilities and Service Systems

Due to a reduced building area, the Reduced Building Area Alternative is expected to have a reduced demand for utilities and services systems, including water, sewer, storm water drainage service/facilities, and solid waste collection and disposal, as compared to the Project. However, as with the Project, the Reduced Building Area Alternative is expected to result in a less-than-significant impact to utilities and services systems.

O. Conclusion

The Reduced Building Area Alternative would reduce – but not avoid – the Project’s significant and unavoidable air quality and GHG emission impacts. The Reduced Building Alternative would reduce the Project’s less-than-significant impacts to energy and utilities and service systems. All other impacts from the Reduced Building Alternative would be similar to the Project.

The Reduced Building Area Alternative would not meet Project Objective “E” due to the incompatibility of an outdoor industrial storage yard abutting existing residential land uses and would meet Project Objectives “A” and “B” less effectively than the Project due to the reduction in building area on-site. The Reduced Building Area Alternative would meet all of the Project’s other objectives.

6.4 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Section 15126.6(e)(2) of the CEQA Guidelines indicates that an analysis of alternatives shall identify an environmentally superior alternative among the alternatives evaluated in the EIR. In general, the environmentally superior alternative as defined by CEQA should minimize adverse impacts to the Project site and its surrounding environment.

As shown in Table 6-1, both the No Development Alternative and No Project Alternative would avoid or reduce all of the Project’s significant environmental impacts and, therefore, can be considered environmentally superior to the Project. Both the No Development Alternative and No Project Alternative are considered to be a “no project” alternative as defined by CEQA Guidelines Section 15126.6(e)(3). If a “no project” alternative is identified as the environmentally superior alternative then the EIR shall also identify an environmentally superior alternative among the other alternatives (see CEQA Guidelines Section 15126.6(e)(2)). Thus, the Reduced Building Area Alternative, as described in Subsection 6.3.3, is identified as the environmentally superior alternative, because the Reduced Building Area Alternative would result in the greatest reduction of environmental impacts among the remaining alternatives as summarized in Table 6-1.



Table 6-1 Alternatives to the Project – Comparison of Environmental Impacts

ENVIRONMENTAL TOPIC	PROJECT SIGNIFICANCE OF IMPACTS AFTER MITIGATION	NO DEVELOPMENT ALTERNATIVE	NO PROJECT ALTERNATIVE	REDUCED BUILDING AREA ALTERNATIVE
Aesthetics	Significant Impact	Reduced	Reduced	Similar
Air Quality	Significant and Unavoidable	Reduced	Reduced	Reduced
Biological Resources	Less-than-Significant Impact	Increased	Similar	Similar
Cultural Resources	Less-than-Significant Impact	Increased	Similar	Similar
Energy	Less-than-Significant Impact	Reduced	Reduced	Reduced
Geology and Soils	Less-than-Significant Impact	Increased	Similar	Similar
Greenhouse Gas Emissions	Significant and Unavoidable	Reduced	Reduced	Reduced
Hazards and Hazardous Materials	Less-than-Significant Impact	Reduced	Reduced	Similar
Hydrology and Water Quality	Less-than-Significant Impact	Increased	Similar	Similar
Land Use and Planning	Less-than-Significant Impact	Reduced	Similar	Similar
Noise	Less-than-Significant Impact	Reduced	Reduced	Similar
Transportation	Less-than-Significant Impact	Reduced	Similar	Similar
Tribal Cultural Resources	Less-than-Significant Impact	Increased	Similar	Similar
Utilities and Service Systems	Less-than-Significant Impact	Reduced	Reduced	Reduced
ABILITY TO MEET PROJECT OBJECTIVES				
Objective A: To expand economic development, facilitate job creation, and increase the tax base for the City of Moreno Valley by establishing new industrial development adjacent to established and planned industrial areas.		No	No	Yes, but less effectively than the Project
Objective B: To attract employment-generating businesses to the City of Moreno Valley to reduce the need for members of the local workforce to commute outside the area for employment, thereby improving the job-housing balance in the City.		No	No	Yes, but less effectively than the Project
Objective C: To develop a Class A speculative light industrial building in Moreno Valley that is designed to meet contemporary industry standards and be economically competitive with similar industrial buildings in the local area and region.		No	No	Yes



ABILITY TO MEET PROJECT OBJECTIVES			
Objective C: To develop a Class A speculative light industrial building in Moreno Valley that is designed to meet contemporary industry standards and be economically competitive with similar industrial buildings in the local area and region.	No	No	Yes
Objective D: To attract businesses that can expedite the delivery of essential goods to consumers and businesses in Moreno Valley and beyond the City boundary.	No	No	Yes
Objective E: To develop a project that has architectural design and operational characteristics that complement other existing and planned buildings in the immediate vicinity and minimize conflicts with other nearby land uses.	No	No	No
Objective F: To develop a light industrial building in close proximity to designated truck routes and the State highway system to avoid or shorten truck-trip lengths on other roadways	No	No	Yes
Objective G: To develop a property that has access to available infrastructure, including roads and utilities	No	Yes	Yes



7.0 REFERENCES

7.1 PERSONS INVOLVED IN THE PREPARATION OF THIS EIR

7.1.1 CITY OF MORENO VALLEY COMMUNITY DEVELOPMENT DEPARTMENT, PLANNING DIVISION

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7.2 DOCUMENTS INCORPORATED BY REFERENCE IN THIS EIR

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7.4 DOCUMENTS APPENDED TO THIS EIR

The following reports, studies, and supporting documentation were used in preparing the Moreno Valley Trade Center EIR and are bound separately as Technical Appendices. A copy of the Technical Appendices is available for review at the City of Moreno Valley Community Development Department, Planning Division at 14177 Frederick Street, Moreno Valley, CA 92553.

- Appendix A: Initial Study for Moreno Valley Trade Center, Notice of Preparation, and Written Comments
- Appendix B1: Urban Crossroads, 2020. *Moreno Valley Trade Center Warehouse Air Quality Impact*. October 9, 2020.
- Appendix B2: Urban Crossroads, 2020. *Moreno Valley Trade Center E-Commerce Air Quality Impact*. October 9, 2020.
- Appendix B3: Urban Crossroads, 2020. *Moreno Valley Trade Center Warehouse Mobile Source Health Risk Assessment*. October 9, 2020.
- Appendix B4: Urban Crossroads, 2020. *Moreno Valley Trade Center E-Commerce Mobile Source Health Risk Assessment*. January 7, 2021.
- Appendix B5: Urban Crossroads, 2020. *Moreno Valley Trade Center (Warehouse Scenario) Air Quality, Greenhouse Gas, & Health Risk Assessment Evaluation*. October 9, 2020.



- Appendix B6: Urban Crossroads, 2020. *Moreno Valley Trade Center (E-Commerce Scenario) Air Quality, Greenhouse Gas, & Health Risk Assessment Evaluation*. October 9, 2020.
- Appendix C1: Glen Lukos Associates, 2020. *Biological Technical Report for Moreno Valley Trade Center Property*. June 2020.
- Appendix C2: Glen Lukos Associates, 2020. *Jurisdictional Delineation of the Moreno Valley Trade Center Project, an Approximate 73-Acre Property Located in the City of Moreno Valley, Riverside County, California*. June 23, 2020.
- Appendix C3: Glen Lukos Associates, 2020. *Determination of Biologically Equivalent or Superior Preservation (DBESP) Analysis for Impacts to MSHCP Riparian/Riverine Areas Moreno Valley Trade Center Project*. July 8, 2020.
- Appendix D: Rincon Consultants, 2019. *Moreno Valley Trade Center Project Cultural Resources Assessment Report*. November 2019.
- Appendix E1: Urban Crossroads, 2020. *Moreno Valley Trade Center Warehouse Energy Analysis*. January 7, 2021.
- Appendix E2: Urban Crossroads, 2020. *Moreno Valley Trade Center E-Commerce Energy Analysis*. January 7, 2021.
- Appendix F: Southern California Geotechnical, 2019. *Geotechnical Investigation Proposed Commercial/Industrial Building SWC Eucalyptus Avenue and Redlands Boulevard Moreno Valley, California for Hillwood*. November 4, 2019.
- Appendix G: Rincon Consultants, 2019. *Paleontological Resource Assessment for the Moreno Valley Trade Center Project, City of Moreno Valley, Riverside County, California*. November 12, 2019.
- Appendix H1: Urban Crossroads, 2020. *Moreno Valley Trade Center Warehouse Greenhouse Gas Analysis*. January 7, 2021.
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- Appendix I: LOR Geotechnical Group, Inc., 2019. *Phase I Environmental Site Assessment APNs 488-340-002 Through -012, Southwest Corner of Redlands Boulevard and Eucalyptus Avenue, Moreno Valley, California*. March 1, 2019.
- Appendix J1: Thienes Engineering, 2019. *Preliminary Hydrology Calculations for Moreno Valley Trade Center*. October 28, 2019 (revised March 17, 2021).



- Appendix J2: Thienes Engineering, 2019. *Project Specific Preliminary Water Quality Management Plan (P-WQMP) for PEN-0193/LWQ19-0035 Moreno Valley Trade Center*. November 7, 2019.
- Appendix J3: Thienes Engineering, 2020. *Preliminary Hydrology Calculations for Moreno Valley Trade Center, Option 2 E-Commerce/Fulfillment Center Site Plan*. January 24, 2020 (revised March 24, 2021).
- Appendix J4: Thienes Engineering, 2020. *Project Specific Preliminary Water Quality Management Plan (P-WQMP) for Moreno Valley Trade Center, Option 2 E-Commerce/Fulfillment Center Site Plan*. March 16, 2020.
- Appendix J5: Thienes Engineering, 2021. *Supplemental Hydrology Memo for Moreno Valley Trade Center*.
- Appendix K1: Urban Crossroads, 2020. *Moreno Valley Trade Center Warehouse Noise Impact Analysis*. January 10, 2021.
- Appendix K2: Urban Crossroads, 2020. *Moreno Valley Trade Center E-Commerce Noise Impact Analysis*. January 10, 2021.
- Appendix L1: Translutions, 2020. *Moreno Valley Trade Center Traffic Impact Analysis Warehouse Scenario*. November 5, 2020.
- Appendix L2: Translutions, 2020. *Moreno Valley Trade Center Traffic Impact Analysis E-Commerce Scenario*. November 5, 2020.
- Appendix L3: Translutions, 2020. *Moreno Valley Trade Center Trip Generation Comparison (Warehouse Scenario)*. January 4, 2021.
- Appendix L4: Translutions, 2020. *Moreno Valley Trade Center Trip Generation Comparison (E-Commerce Scenario)*. January 4, 2021.
- Appendix M: Eastern Municipal Water District, 2020. *Water Supply Assessment Report Moreno Valley Trade Center*. April 8, 2020.