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Draft Environmental Impact Report

Inland Empire North Logistics Center Apple Valley

SEPTEMBER 2024

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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
AAQS	ambient air quality standards
AB	Assembly Bill
ACC	Advanced Clean Cars
ACT	Advanced Clean Trucks
AERMOD	American Meteorological Society/Environmental Protection Agency Regulatory Model
AFV	alternative fuel vehicle
AFY	acre-feet per year
APN	Assessor's Parcel Number
AVPD	Apple Valley Police Department
BLM	Bureau of Land Management
BMP	best management practice
BSA	Biological Study Area
BUG	backlight, uplight, and glare
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
CalEEMod	California Emissions Estimator Model
CalGEM	California Geologic Energy Management Division
CALGreen	California Green Building Standards Code
CalSTA	California State Transportation Agency
Cal-IPC	California Invasive Plant Council
CAP	Climate Action Plan
CARB	California Air Resources Board
CCAEJ	Center for Community Action and Environmental Justice
CCS	carbon capture and storage
CDFW	California Department of Fish and Wildlife
CDNPA	California Desert Native Plants Act
CDR	carbon dioxide removal
CEC	California Energy Code
CEQA	California Environmental Quality Act
CERCLA	California Environmental Response, Compensation, and Liability Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CH_4	methane
CHRIS	California Historical Resources Information System
CIP	Capital Improvement Plan
CIWM	California Integrated Waste Management
CIWMB	California Integrated Waste Management Board

Acronym/Abbreviation	Definition
CMAQ	Community Multiscale Air Quality
CMP	Congestion Management Plan
CNDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNPS	California Native Plant Society
CNRA	California Natural Resources Agency
CO	carbon monoxide
CO_2	carbon dioxide
County	San Bernardino County
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
CTC	California Transportation Commission
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
dB	decibel
dBA	A-weighted decibel
DIF	Development Impact Fee
DOC	California Department of Conservation
DOD	Department of Defense
DOF	Department of Finance
DOGGR	Division of Oil, Gas, and Geothermal Resources
DPM	diesel particulate matter
DWR	California Department of Water Resources
EIA	Energy Information Administration
EIR	environmental impact report
EISA	Energy Independence and Security Act of 2007
EO	Executive Order
EOP	Emergency Operations Plan
EPA	U.S. Environmental Protection Agency
ESA	Environmental Site Assessment
ESCP	erosion and sediment control plan
EV	electric vehicle
FAR	floor area ratio
FESA	federal Endangered Species Act
FICON	Federal Interagency Committee on Noise
GHG	greenhouse gas
GLO	General Land Office
GO-Biz	Governor's Office of Business and Economic Development
GSA	Groundwater Sustainability Agency
GSP	Groundwater Sustainability Plan

Acronym/Abbreviation	Definition
GTS	General Technologies and Solutions
GW	gigawatt
HAP	hazardous air pollutant
HARP2	Hotspots Analysis and Reporting Program Version 2
HDV	heavy-duty vehicle
HFC	hydrofluorocarbon
HHDT	heavy-heavy duty truck
HIA	health impact assessment
HMBP	hazardous materials business plan
HMMP	Habitat Mitigation and Monitoring Plan
HRA	health risk assessment
HVAC	heating, ventilation, and air conditioning
Hz	hertz
IBank	California Infrastructure and Economic Development Bank
IESNA	Illuminating Engineering Society of North American
IPCC	Intergovernmental Panel on Climate Change
IRP	Integrated Resource Planning
ISO	California Independent System Operator
ISO	International Organization for Standardization
ISTEA	Intermodal Surface Transportation Efficiency Act
ITE	Institute of Transportation Engineers
IWMP	Idle Well Management Plan
kWh	kilowatt-hour
LCFS	Low Carbon Fuel Standard
L_{dn}	day–night average nosie level
LDV	light-duty Vehicle
LEED	Leadership in Energy and Environmental Design
L_{eq}	equivalent noise level over a given period
LEV	Low-Emission Vehicle
LHMP	Local Hazard Mitigation Plan
LID	low-impact development
L_{max}	maximum sound level
L_n	statistical sound level
LOS	level of service
LZ	lighting zone
MBTA	Migratory Bird Treaty Act
MDAB	Mojave Desert Air Basin
MDAQMD	Mojave Desert Air Quality Management District
MDV	medium-duty vehicle
MHDT	medium heavy duty
MLD	most likely descendant

Acronym/Abbreviation	Definition
MM	mitigation measure
MMT	metric ton
$MMTCO_2e$	million metric tons of carbon dioxide equivalent
MPO	Metropolitan Planning Organization
MRZ	Mineral Resource Zone
MS4	Municipal Separate Storm Sewer System
MSA	Metropolitan Statistical Area
MT	metric ton
MTBE	methyl tertiary butyl ether
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NF_3	nitrogen trifluoride
NHMLA	Natural History Museum of Los Angeles County
NHTSA	National Highway Traffic Safety Administration
NIMS	National Incident Management System
NO	nitric oxide
NO_2	nitrogen dioxide
NOP	Notice of Preparation
NO_x	oxides of nitrogen
NPDES	National Pollution Discharge Elimination System
NRHP	National Register of Historic Places
O/D	Origin/Destination
OEHHA	Office of Environmental Health Hazard Assessment
OHWM	ordinary high water mark
PCE	passenger car equivalent
PFC	perfluorocarbon
PGM	photochemical grid model
PM_{10}	coarse particulate matter
PPV	peak particle velocity
PR	Proposed Rule
PRC	Public Resources Code
PRIMP	Paleontological Resources Impact Mitigation Program
PSD	Prevention Significant Deterioration
PV	photovoltaic
RCNM	Roadway Construction Noise Model
RCRA	Resource Conservation and Recovery Act
RFS	Renewable Fuel Standard
RPS	Renewables Portfolio Standard
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board

Acronym/Abbreviation	Definition
RWWTP	Regional Wastewater Treatment Plant
SAFE-1	Safer Affordable Fuel-Efficient Vehicles Rule Part One: One National Program
SANBAG	San Bernardino Associated Governments
SB	Senate Bill
SBCTA	San Bernardino County Transportation Authority
SBTAM	San Bernardino Traffic Analysis Model
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCCIC	South Central Coast Information Center
SCE	Southern California Edison
SCRAM	Support Center for Regulatory Atmospheric Modeling
SCS	sustainable communities strategy
SEMS	Standardized Emergency Management System
SF_6	sulfur hexafluoride
SGC	Strategic Growth Council
SHPO	State Historic Preservation Officer[1]
SJVAPCD	San Joaquin Valley Air Pollution Control District
SLF	Sacred Lands File
SMARA	Surface Mining and Reclamation Act
SO_2	sulfur dioxide
SP	Specific Plan
STIP	State Transportation Improvement Program
SVP	Society of Vertebrate Paleontology
SWMP	stormwater management program
SWPPP	stormwater pollution prevention plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
TCE	trichloroethane
TCR	Tribal Cultural Resource
TDS	total dissolved solids
TIA	transportation impact analysis
TMDL	total maximum daily load
TPA	Transit Priority Area
UNFCCC	United Nations Framework Convention on Climate Change
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
UTR	utility tractor
UWMP	urban water management plan
VdB	vibration decibel
VMT	vehicle miles traveled

Acronym/Abbreviation	Definition
VOC	volatile organic compound
VVTA	Victor Valley Transit Authority
VVWRA	Victor Valley Wastewater Reclamation Authority
WEAP	Worker Environmental Awareness Program
WJT	western Joshua tree
WJTCA	Western Joshua Tree Conservation Act
WQMP	water quality management plan
WSA	water supply assessment
YSMN	Yuhaaviatam of San Manuel Nation
ZEV	zero-emission vehicle

1 Executive Summary

1.1 Introduction

This Environmental Impact Report (EIR) has been prepared by the Town of Apple Valley (Town) as lead agency pursuant to the California Environmental Quality Act (CEQA) and the CEQA Guidelines. This EIR has been prepared to evaluate the environmental impacts associated with implementation of the Inland Empire North Logistics Center Apple Valley Project (Project).

This EIR is an informational document intended for use by the Town, other public agencies, and members of the public in evaluating the potential environmental effects of the Project.

CEQA requires that local government agencies, before taking action on projects over which they have discretionary approval authority, consider the environmental consequences of such projects. An EIR is a document designed to provide to the public and to local and state governmental agency decision makers an analysis of potential environmental consequences of a project to support informed decision-making.

The Town prepared this EIR to provide the public and responsible agencies information about the potential adverse impacts on the local and regional environment associated with implementation of the Project. This EIR was prepared pursuant to CEQA, codified as California Public Resources Code Section 21000 et seq., and the CEQA Guidelines in the California Code of Regulations, Title 14, Section 15000 et seq.

This summary provides a brief synopsis of the Project, results of the environmental analysis contained within this environmental document, alternatives to the Project that were considered, and major areas of controversy and issues to be resolved by decision makers. This summary does not contain the extensive background and analysis found throughout the individual chapters within the EIR. Therefore, the reader should review the entire document to fully understand the Project and its environmental effects.

1.2 Project Location

The Project site is located in the northern part of the Town of Apple Valley (Town), which is located in the Victor Valley/High Desert region in western San Bernardino County (County). The Town is bordered by the City of Victorville to the west, the City of Hesperia to the southwest, and unincorporated County to the north and east. The Project site is located directly east of I-15, north of Falchion Road and south of Norco Street Regional access to the Project site is provided via I-15, which is located adjacent to the Project site's western boundary.

1.3 Project Description

Project Summary

The Project would include construction of two industrial/warehouse buildings and associated improvements on approximately 178 acres of land (see Figure 1-1, Overall Site Plan). Building 1 would be approximately 1,507,326 square feet while Building 2 would be approximately 1,097,120 square feet. The Project's associated improvements would include loading docks, truck and vehicle parking, and landscaped areas.

The Project would include several improvements to the local circulation system, including improvements to Falchion Road and Outer Highway 15 and the construction of Norco Road and Apple Valley Road, including frontage landscaping and sidewalks, curbs, and gutters. A variety of trees, shrubs, plants, and groundcovers would be planted within the Project frontages to incorporate a layering concept to provide different height trees and border or accent shrubs and low ground cover, as well as within the landscape areas located around the proposed industrial/warehouse buildings and throughout the Project site.

The Project would also involve the re-alignment of Apple Valley Road to the eastern Project boundary and off-site improvements to roadways located within the vicinity of the Project. Improvements would occur at Falchion Road from Outer Highway 15 to Apple Valley Road, Norco Street from Outer Highway 15 to Apple Valley Road, Outer Highway 15 between Falchion Road and Norco Street, and Apple Valley Road between Falchion Road and Norco Street as described below. These would be public roads once constructed.

Frontage Improvements

The required Project-specific frontage and access improvements are described in detail in Appendix J and summarized below.

- Falchion Road
  - Construct Falchion Road[1] from Outer Highway 15 to Apple Valley Road.
  - Construct and improve the Project's frontage with Falchion Road from Outer Highway 15 to Apple Valley Road.
  - The Project will be required to dedicate land and construct the 52-foot half-width of a major road section including the Project's driveways. Until the southern half of Falchion Road is constructed by others, the two travel lanes constructed within the half-width section can provide for two-way traffic.
- Norco Street
  - Construct Norco Street[2] from Outer Highway 15 to Apple Valley Road.
  - Construct and improve the Project's frontage with Norco Street between Outer Highway 15 and Apple Valley Road.
  - The Project will be required to construct the 52-foot half-width of a secondary road section including the proposed driveways accessing the Project from Norco Street.
- Outer Hwy 15
  - Construct and improve the Project's frontage with Outer Highway 15 between Falchion Road and Norco Street.
  - The Project will be required to dedicate land and construct the 44-foot half-width of a secondary road section including the Project's driveways.
- Apple Valley Road
  - Construct and improve the Project's frontage with Apple Valley Road.

[1] Falchion Road is designated as a Major Road in the General Plan with a 104-foot right-of-way to accommodate a four-lane traveled way with a 12-foot median, shoulder, bike lanes, or street parking, as well as a 12-foot parkway/sidewalk on both side of the street.

[2] Norco Street is designated as a Major Road in the General Plan with a 104-foot right-of-way to accommodate a four-lane traveled way with a 12-foot median, shoulder, bike lanes, or street parking, as well as a 12-foot parkway/sidewalk on both side of the street.

- The Project will be required to dedicate land and construct the 64-foot half-width of Apple Valley Road's major divided arterial designation.
- The Project should construct the section of Apple Valley Road fronting Project-owned property between Falchion Road and Norco Street as a minimum two-way two-lane (one in each direction) roadway to close this gap.

A tentative parcel map has been submitted to split the parcel into two legal parcels, with one building on each parcel, and to accommodate the eastward re-align of Apple Valley Road.

The Project would support a variety of activities associated with the two industrial/warehouse buildings, including the ingressing and egressing of passenger vehicles and trucks, the loading and unloading of trucks with designated truck courts/loading areas, and the internal and external movement of materials around the Project site via forklifts, pallet jacks, yard hostlers, and similar equipment. Project-related trucks would travel on the County and Town of Apple Valley designated truck routes, including Outer Highway 15 to I-15 at Stoddard Wells Road and on Apple Valley Road to I-15 at Quarry Road. In addition, office space would support general internal administrative activities related to industrial/warehouse uses.

At this time, no refrigeration is being proposed as part of the Project, and the Project Applicant currently has no plans to lease to any tenant needing refrigerated space. Because an end user for either of the two buildings has not yet been identified, specific details regarding future operational activities on the Project site are not yet available. However, for the purposes of CEQA and to ensure full disclosure on all potential allowable uses on the Project site, this environmental impact assessment assumes development of a "blend" of industrial uses. Modeling assumptions used for the air quality, health risk assessment, greenhouse gas (GHG), energy, and traffic impact analyses summarized in subsequent chapters of this EIR assume 100% of the Project space would consist of unrefrigerated warehouse.

Project Construction

Construction is expected to commence in 2024 and would last through 2026. The duration of construction activity was estimated based on consultation with the Project Applicant and past project experience. The construction schedule used in the analysis is assumed to commence in or around September 2024 and last approximately 21 months, ending towards the end of May 2026.[3] This schedule represents a conservative analysis should construction occur any time after the respective dates, since emissions factors for construction decrease as the analysis year increases due to emissions regulations becoming more stringent. As discussed below, a development agreement is contemplated with the Project to extend applicable vesting periods for the Project's entitlements, which would allow for construction to start after September 2024 if market conditions or other factors preclude immediate construction.

[3] The analysis assumes a construction start date of May 2026, which represents the earliest date construction would initiate. Assuming the earliest start date for construction represents the worst-case scenario for criteria air pollutant and greenhouse gas emissions because equipment and vehicle emission factors for later years would be slightly less due to more stringent standards for in-use off-road equipment and heavy-duty trucks, as well as fleet turnover replacing older equipment and vehicles in later years.

1.4 Project Objectives

Consistent with the Project's purpose and need, the primary objectives sought by the Project are as follows:

Objective 1: Develop large-format industrial buildings to stimulate job growth and meet existing demand for large-format industrial buildings in the region.

Objective 2: Develop a fiscally sound, jobs-producing, and tax-generating land use in north Apple Valley.

Objective 3: Implement general plan goals to concentrate nonresidential uses near existing roadways, highways, and freeways in an effort to isolate and reduce any potential environmental impacts related to truck traffic congestion, air emissions, industrial noise, and biological resources to the greatest extent feasible.

Objective 4: Create a project that takes advantage of and enhances existing infrastructure, including the proximity to major regional roadways, railroad service corridors, and other similar infrastructure.

Objective 5: Efficiently develop the land to the highest and best allowable land use compatible with the Town's General Plan and Zoning Code.

1.5 Discretionary Actions

Consistent with the Town's General Plan and Municipal Code, the Project requires certain entitlements be submitted, reviewed, and approved by the Town.

The Planning Commission will consider and make a recommendation to the Town Council on all requested entitlements. The Town Council will review and approve or deny the requested entitlements. The requested entitlements include:

Discretionary Approvals

Planning Commission will consider and make a recommendation to the Town Council on all requested entitlements. The Town Council will review and approve or deny the requested entitlements.

- **Consider Certification of EIR.** The EIR will be considered and certified or rejected. If certified, appropriate CEQA Findings and the mitigation monitoring and reporting program will be adopted.
- **Development Permit Review.** A review of Development Permit No. DP2022-014 will be held in order to consider the Project, including all requested entitlements.
- **General Plan Amendment.** An amendment to the Circulation Element of the Town's General Plan to re-align Apple Valley Road and change the designation of Norco Road.
- **Tentative Parcel Map.** A tentative map is required to re-align Apple Valley Road eastward and also to divide the single parcel into two roughly equal-sized parcels to accommodate one building on each new lot.
- **Development Agreement.** A Development Agreement between the Town and the Project Applicant pursuant to Section 9.04 of the Apple Valley Municipal Code may be considered. The Development Agreement would provide sufficient time for the development of the Project by locking in development standards and extending applicable vesting periods for the Project's entitlements and would also

establish a mechanism whereby the Project Applicant would be partially reimbursed for costs associated with public improvements constructed that would be used by future developments. Reimbursements would be funded by developers of these future developments. The Development Agreement does not contemplate any additional physical improvements, other than those already identified in the Project description, analysis, and proposed mitigation for the Project. Approval of the Development Agreement is not required for development of the Project.

Ministerial Approvals

Town of Apple Valley Subsequent Implementing Approvals

- Approvals for water and sewer infrastructure
- Remove and relocate on-site protected native desert plants
- Issue grading permits
- Issue building permits
- Issue encroachment permits

The Town would use this EIR and associated documentation in its decision to approve or deny the required discretionary permits. Other responsible and/or trustee agencies can use this EIR and supporting documentation in their decision-making process to issue additional approvals.

Other Agency Approvals

In addition to the approvals required by the Town to implement the Project, the Project would also require permits from other agencies. The following permits are anticipated to be required, but this list may not be exhaustive and may be refined throughout the Project planning process.

- California Department of Transportation. An **Encroachment Permit** from the California Department of Transportation (Caltrans) would be required to accommodate the possible improvements to the I-15/Stoddard Wells Road on-/off-ramps.
- California Department of Fish and Wildlife. An **Incidental Take Permit** from the California Department of Fish and Wildlife (CDFW) would be required to remove western Joshua trees that are present on the Project site. A **Lake and Streambed Alteration Agreement** from CDFW would also be required to modify existing drainages that are present on the Project site.
- Regional Water Quality Control Board. A **Waste Discharge Requirements Permit** from the Regional Water Quality Control Board (RWQCB) would be required to modify existing drainages that are present on the Project site.
- Mojave Desert Air Quality Management District. A **Dust Control Plan** would be required to be approved prior to ground-disturbing activities to comply with Rule 403.

1.6 Summary of Impacts

Table 1-1 presents a summary of the Project's significant environmental impacts and mitigation measures that would reduce or avoid those effects, and the level of significance of the impact after implementation of the mitigation measures. With the exception of those specific impacts identified in Table 1-1, the Project would result in

less than significant or no impacts with regard to all other resource areas evaluated, and therefore, those resource areas are not included in Table 1-1.

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
Aesthetics			
Would the project have a substantial adverse effect on a scenic vista?	Less-than-Significant Impact	No mitigation required.	Less-than-significant
Would the project substantially damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	No Impact	No mitigation required.	No impact
In non-urbanized areas, would the project 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?	Less-than-Significant Impact	No mitigation required.	Less-than-significant
Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Less-than-Significant Impact	No mitigation required.	Less-than-significant
Would the project have a cumulative effect on aesthetic resources?	Less-than-Significant Impact	No mitigation required.	Less-than-significant
Air Quality			
Would the project conflict with or obstruct implementation of the applicable air quality plan?	Potentially Significant	**MM-AQ-1 Architectural Coating Requirements.** Architectural and industrial maintenance coatings (e.g., paints) applied to the Project site shall have volatile organic compound levels of less than 10 grams per liter. **MM-AQ-2 Zero-Emission or Near-Zero-Emission Equipment.** The following measure shall be implemented during all ongoing business operations and shall be included as part of contractual lease	Significant and Unavoidable

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		agreement language to ensure that tenants and operators of the Project are informed of the following operational responsibility: ▪ -All equipment and appliances operating on the Project site shall be zero-emission or near-zero-emission equipment. This requirement shall apply to indoor and outdoor equipment such as forklifts, handheld landscaping equipment, yard equipment, and office appliances. The building manager or their designee shall be responsible for enforcing these requirements. **MM-AQ-3. Restriction on Cold and/or Refrigerated Space.** Operations involving cold or refrigerated storage shall be prohibited unless additional environmental review, including a health risk assessment, is conducted and certified pursuant to the California Environmental Quality Act.	
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?	Potentially Significant	MM-AQ-1 and MM-AQ-2	Significant and Unavoidable
Would the project expose sensitive receptors to substantial pollutant concentrations?	Potentially Significant	MM-AQ-1 through MM-AQ-3	Significant and Unavoidable
Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Less-than-Significant Impact	No mitigation required.	Less-than-Significant
Would the project have a cumulative effect on air quality resources?	Potentially Significant	MM-AQ-1 and MM-AQ-2	Significant and Unavoidable
Biological Resources			
Would the project have a substantial adverse effect, either directly or through habitat	Potentially Significant	**MM-BIO-1 Conservation of Western Joshua Tree Lands.** Mitigation for direct impacts to 4 western	Less-than Significant with Mitigation

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
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?		Joshua trees that are 5 meters or greater in height, 201 trees 1 meter or greater but less than 5 meters in height, and 78 trees less than 1 meter in height will be fulfilled through a payment of the elected fees as described in Section 1927.3 of the Western Joshua Tree Conservation Act. In conformance with the reduced fee schedule, mitigation will consist of payment of $1,000 for each western Joshua tree 5 meters or greater in height, $200 for each western Joshua tree 1 meter or greater but less than 5 meters in height, and $150 for each western Joshua tree less than 1 meter in height. **MM-BIO-2. Relocation of Desert Native Plants.** Prior to the issuance of grading permits, the Project Applicant shall submit an application and applicable fee paid to the Town of Apple Valley for removal or relocation of protected native desert plants under Town of Apple Valley Municipal Code Chapter 9.76, as required, and shall schedule a pre-construction site inspection with the appropriate authority. In addition, a plot plan shall be approved by the appropriate Town of Apple Valley Review Authority (County Certified Plant Expert, Planning Commission, or Town Council) indicating exactly which trees or plants are authorized to be removed. The application shall include certification from a qualified western Joshua tree and native desert plant expert(s) to determine that proposed removal or relocation of protected native desert plants are appropriate, supportive of a healthy environment, and in compliance with the Town of Apple Valley Municipal Code. Protected plants subject to Town of Apple Valley Municipal Code Chapter 9.76 may be relocated on site or within an area designated for the	

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		species. The application shall include a detailed plan for removal of all protected plants on the Project site. The plan shall be prepared by a qualified western Joshua tree and native desert plant expert(s). The plan shall include the following measures: ▪ Salvaged plants shall be transplanted expeditiously to either their final on-site location or to an approved off-site area. If the plants cannot be expeditiously taken to their permanent relocation area at the time of excavation, they may be transplanted in a temporary area (stockpiled) prior to being moved to their permanent relocation site(s). ▪ Western Joshua trees shall be marked on their north-facing side prior to excavation. Transplanted western Joshua trees shall be planted in the same orientation as they currently occur on the Project site, with the marking on the north side of the trees facing north at the relocation site(s). ▪ Transplanted plants shall be watered prior to and at the time of transplantation. The schedule of watering shall be determined by the qualified tree expert and desert native plant expert(s) to maintain plant health. Watering of the transplanted plants shall continue under the guidance of a qualified tree expert and desert native plant expert(s) until it has been determined that the transplants have become established in the permanent relocation site(s) and no longer require supplemental watering.	

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		MM-BIO-3. Designated Biologist Authority. The designated biologist shall have authority to immediately stop any activity that does not comply with the biological resources mitigation measures and/or to order any reasonable measure to avoid the unauthorized take of an individual western Joshua tree or special-status wildlife species. **MM-BIO-4. Compliance Monitoring.** The designated biologist shall be on site daily when impacts occur. The designated biologist shall conduct compliance inspections to minimize incidental take of western Joshua trees and impacts to other sensitive biological resources; prevent unlawful take of western Joshua trees; and ensure that signs, stakes, and fencing are intact, and that impacts are only occurring outside the permitted impact footprint. Weekly written observation and inspection records that summarize oversight activities and compliance inspections and monitoring activities required by the Incidental Take Permit shall be prepared. **MM-BIO-5. Education Program.** An education program (Worker Environmental Awareness Program [WEAP]) for all persons employed or otherwise working in the Project area shall be administered before performing impacts. The WEAP shall consist of a presentation from the designated biologist that includes a discussion of the biology and status of western Joshua trees, burrowing owls, and loggerhead shrikes, and other biological resources mitigation measures described in the California Environmental Quality Act document. Interpretation for non-English-speaking workers shall be provided, and the same instruction shall be provided to all new workers before they are authorized to perform work in the	

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		Project area. Upon completion of the WEAP, employees shall sign a form stating they attended the program and understand all protection measures. This training shall be repeated at least once annually for long-term and/or permanent employees who will be conducting work in the Project area. MM-BIO-6. Construction Monitoring Notebook. The designated biologist shall maintain a construction-monitoring notebook on site throughout the construction period that shall include a copy of the biological resources mitigation measures with attachments and a list of signatures of all personnel who have successfully completed the education program. The permittee shall ensure that a copy of the construction monitoring notebook is available for review at the Project site upon request by the Town. MM-BIO-7. Delineation of Project Boundaries. Before beginning activities that would cause impacts, the contractor shall, in consultation with the designated biologist, clearly delineate the boundaries with fencing, stakes, or flags, consistent with the grading plan, within which Project impacts will take place. All impacts outside the fenced, staked, or flagged areas shall be avoided, and all fencing, stakes, and flags shall be maintained until the completion of impacts in that area. MM-BIO-8. Hazardous Waste. The applicant shall immediately stop work and, pursuant to pertinent state and federal statutes and regulations, arrange for repair and cleanup by qualified individuals of any fuel or hazardous waste leaks or spills at the time of occurrence, or as soon as it is safe to do so.	

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		MM-BIO-9. Herbicides. The applicant shall limit herbicide use for invasive plant species and shall use herbicides only if it has been determined that hand or mechanical efforts are infeasible. To prevent drift, the permittee shall apply herbicides only when wind speeds are less than 7 miles per hour. All herbicide application shall be performed by a licensed applicator and in accordance with all applicable federal, state, and local laws and regulations. **MM-BIO-10. Pre-construction Clearance Surveys for Mojave Desert Tortoise and Avoidance.** One pre-construction clearance survey in accordance with current U.S. Fish and Wildlife Service (USFWS) protocol shall be conducted to reevaluate locations of potential Mojave desert tortoise burrows within the Project limits so take of Mojave desert tortoise can be avoided. The pre-construction clearance survey shall be conducted in areas supporting potentially suitable habitat 14 to 21 days prior to the start of construction activities; or alternatively, pre-construction clearance surveys may be conducted at any time following construction of a desert tortoise–proof fence encompassing the Project site that would ensure that tortoises cannot enter the Project after clearance surveys are completed. If no Mojave desert tortoises are found during the surveys, no further mitigation would be required; however, desert tortoise–proof fence encompassing the Project site shall remain in place until Project construction is completed and shall be monitored by a qualified biologist in compliance with current USFWS protocol. Should Mojave desert tortoise be located during the clearance survey, all methods used for handling desert tortoises during the clearance surveys must be	

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		in accordance with the USFWS Desert Tortoise Field Manual or Project-specific guidance contained in a habitat conservation plan or Incidental Take Permit. No take of Mojave desert tortoise shall occur without authorization in the form of an Incidental Take Permit pursuant to California Fish and Game Code Section 2081 and a habitat conservation plan. The Project Applicant shall adhere to measures and conditions set forth within the Incidental Take Permit. Anyone who handles desert tortoises during clearance activities must have the appropriate authorizations from USFWS. The area cleared and number of Mojave desert tortoises found within that area shall be reported to the local USFWS and appropriate state wildlife agency. Notification shall be made in accordance with the conditions of the habitat conservation plan or Incidental Take Permit. Should Mojave desert tortoise be located during the clearance survey, the Project would result in the loss of 165.4 acres of suitable habitat for Mojave desert tortoise. Mitigation for direct impacts to 165.4 acres shall be fulfilled through conservation of suitable Mojave desert tortoise habitat through the purchase of credits at a minimum of 1:1 in-kind habitat replacement of equal or better functions and values to those impacted by the Project, for a total of 165.4 acres or as otherwise determined through coordination with USFWS and/or the California Department of Fish and Wildlife. **MM-BIO-11. Pre-construction Surveys for Burrowing Owl and Avoidance.** One pre-construction burrowing owl survey shall be completed no more than 14 days before initiation of site preparation or grading activities, and a second survey shall be completed	

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		within 24 hours of the start of site preparation or grading activities. If ground-disturbing activities are delayed or suspended for more than 30 days after the pre-construction surveys, the Project site and off-site improvement areas shall be resurveyed. Surveys for burrowing owl shall be conducted in accordance with protocols established in the California Department of Fish and Wildlife (CDFW; then California Department of Fish and Game) 2012 (or most recent version) Staff Report on Burrowing Owl Mitigation. If burrowing owls are detected, the burrowing owl relocation plan shall be implemented in consultation with CDFW, with the plan to be approved by the Town. As required by the burrowing owl relocation plan, disturbance to occupied burrows shall be avoided during the nesting season (February 1 through August 31). Buffers shall be established around occupied burrows in accordance with guidance provided in CDFW's Staff Report on Burrowing Owl Mitigation. No Project activities shall be allowed to encroach into established buffers without the consent of a monitoring biologist. The buffer shall remain in place until it is determined that occupied burrows have been vacated or the nesting season has completed. Outside of the nesting season, passive owl relocation techniques shall be implemented. Owls shall be excluded from burrows in the immediate Project area and within a buffer zone by installing one-way doors in burrow entrances. These doors shall be in place at least 72 hours prior to ground-disturbing activities. The Project site shall be monitored daily for 1 week to confirm owl departure from burrows prior to any	

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		ground-disturbing activities. Compensatory mitigation for permanent loss of owl habitat, if the site is occupied by burrowing owl, shall be provided following the guidance in CDFW's Staff Report on Burrowing Owl Mitigation. Where possible, burrows shall be excavated using hand tools and refilled to prevent reoccupation. Sections of flexible plastic pipe shall be inserted into the tunnels during excavation to maintain an escape route for any wildlife inside the burrow. An endoscope (fiber optic camera) should also be used to scope the burrow in front of the excavation. Occupied burrows that are excavated need to be replaced at a 2:1 ratio if there are already suitable burrows present nearby. Should burrowing owl be located during the clearance survey, the Project would result in the loss of 165.4 acres of suitable habitat for burrowing owl. Mitigation for direct impacts to 165.4 acres shall be fulfilled through conservation of suitable burrowing owl habitat through the purchase of credits at a minimum of 1:1 in-kind habitat replacement of equal or better functions and values to those impacted by the Project, for a total of 165.4 acres. **MM-BIO-12. Pre-construction Nesting Bird Surveys and Avoidance.** Special-status bird species that have a moderate potential to occur within the Project include burrowing owl, LeConte's thrasher, and loggerhead shrike. The Project also contains trees, shrubs, and other vegetation that provide opportunities for other non-sensitive birds and raptors to nest on site. Construction activities shall avoid the migratory bird nesting season (typically February 1 through August 31) to reduce any	

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		potential significant impact to birds that may be nesting in the survey area. If construction activities must occur during the migratory bird nesting season, an avian nesting survey of the Project site and within 500 feet of all impact areas must be conducted to determine the presence/absence of protected migratory birds and active nests. The avian nesting survey shall be performed by a qualified wildlife biologist within 72 hours prior to the start of construction in accordance with the Migratory Bird Treaty Act and California Fish and Game Code Sections 3503, 3503.5, and 3513. If an active bird nest is found, the nest shall be flagged and mapped on the construction plans, along with an appropriate buffer established around the nest, which shall be determined by the biologist based on the species' sensitivity to disturbance (typically 300 feet for passerines and 500 feet for raptors and special-status species). The nest area shall be avoided until the nest is vacated and the juveniles have fledged. The nest area shall be demarcated in the field with flagging and stakes or construction fencing. On-site construction monitoring shall be conducted when construction occurs in close proximately to an active nest buffer. No Project activities shall encroach into established buffers without the consent of a monitoring biologist. The buffer shall remain in place until is determined that the nestlings have fledged and the nest is no longer active. MM-BIO-13. Trash and Debris. The following avoidance and minimization measures shall be implemented during Project construction: ▪ Fully covered trash receptacles that are animal-proof shall be installed and used by the operator	

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		to contain all food, food scraps, food wrappers, beverage containers, and other miscellaneous trash. Trash contained within the receptacles shall be removed at least once a week from the Project site. ▪ Construction work areas shall be kept clean of debris, such as cable, trash, and construction materials. All construction/contractor personnel shall collect all litter, vehicle fluids, and food waste from the Project site on a daily basis. **MM-BIO-14. Invasive Plant Management.** To reduce the spread of invasive plant species, landscape plants within 200 feet of native vegetation communities shall not be on the most recent version of the California Invasive Plant Council's Inventory of Invasive Plants (http://www.cal-ipc.org/ip/inventory/index.php). Post-construction, the Project Applicant shall continually remove invasive plant species on site by hand or mechanical methods, as feasible. **MM-BIO-15. Lighting.** Lighting for construction activities and operations within 50 feet of the outside edge of the impact footprint containing habitat for special-status wildlife shall be directed away from natural areas.	
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. Fish and Wildlife Service?	Potentially Significant	MM-BIO-3 MM-BIO-4 MM-BIO-5 MM-BIO-6 MM-BIO-7 MM-BIO-8 MM-BIO-9	Less-than-Significant with Mitigation

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	Potentially Significant	MM-BIO-3 MM-BIO-4 MM-BIO-5 MM-BIO-6 MM-BIO-7 MM-BIO-8 **MM-BIO-16. Aquatic Resources Mitigation.** The Project site and off-site improvements area support aquatic resources that are considered jurisdictional under the Regional Water Quality Control Board (RWQCB) and the California Department of Fish and Wildlife (CDFW). Prior to construction activity, the Applicant shall coordinate with the Lahontan RWQCB (Region 6) to ensure conformance with the requirements of the Porter–Cologne Water Quality Control Act (waste discharge requirement). Prior to activity within CDFW jurisdictional streambed or associated riparian habitat, the Applicant shall coordinate with CDFW (Inland Deserts Region 6) relative to conformance to the Lake and Streambed Alteration permit requirements. The Project shall mitigate to ensure no-net-loss of waters at a minimum of 1:1 with purchase of credits (1.61 acres RWQCB/CDFW jurisdiction and 0.25 acres CDFW only jurisdiction) for impacts to aquatic resources as part of an overall strategy to ensure no net loss. Mitigation shall be completed through use of a mitigation bank (e.g., West Mojave Mitigation Bank, Wildlands) or other applicant-sponsored mitigation. Final mitigation ratios and credits shall be determined in consultation with RWQCB and/or CDFW based on agency evaluation of current resource functions and values and through each	Less-than-Significant with Mitigation

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		agency's respective permitting process. Should Applicant-sponsored mitigation be implemented, a Habitat Mitigation and Monitoring Plan (HMMP) shall be prepared in accordance with State Water Resources Control Board guidelines and approved by the agencies in accordance with the proposed program permits. The HMMP shall include a conceptual planting plan including planting zones, grading, and irrigation, as applicable; a conceptual planting plant palette; a long-term maintenance and monitoring plan; annual reporting requirements; and proposed success criteria. Any Applicant-sponsored mitigation shall be conserved and managed in perpetuity. Best management practices shall be implemented to avoid any indirect impacts on jurisdictional waters, including the following: ▪ Vehicles and equipment shall not be operated in ponded or flowing water except as described in permits. ▪ Water containing mud, silt, or other pollutants from grading or other activities shall not be allowed to enter jurisdictional waters or be placed in locations that may be subjected to high storm flows. ▪ Spoil sites shall not be located within 30 feet from the boundaries of jurisdictional waters or in locations that may be subject to high storm flows, where spoils might be washed back into drainages. ▪ Raw cement/concrete or washings thereof, asphalt, paint or other coating material, oil or other petroleum products, or any other	

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		substances that could be hazardous to vegetation or wildlife resources resulting from Project-related activities shall be prevented from contaminating the soil and/or entering avoided jurisdictional waters. ▪ No equipment maintenance shall be performed within 100 feet of jurisdictional waters, including wetlands and riparian areas, where petroleum products or other pollutants from the equipment may enter these areas. Fueling of equipment shall not occur on the Project site.	
Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	Less-than-Significant	MM-BIO-15	Less-than-Significant
Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	Potentially Significant	MM-BIO-1 MM-BIO-2	Less-than-Significant with Mitigation
Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	Less-than-Significant	No mitigation required.	Less-than-Significant
Would the project have a cumulative effect on biological resources?	Potentially Significant	MM-BIO-1 through MM-BIO-16	Less-than-Significant with Mitigation
Cultural, Tribal, and Paleontological Resources			
Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	Potentially Significant	**MM-CUL-1. Workers Environmental Awareness Program (WEAP) Training.** All construction personnel and monitors who are not trained archaeologists shall be briefed regarding unanticipated discoveries	Less-than-Significant with Mitigation Incorporated

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		prior to the start of construction activities. A basic presentation shall be prepared and presented by a qualified archaeologist to inform all personnel working on the Project about the archaeological sensitivity of the area. The purpose of the WEAP training is to provide specific details on the kinds of archaeological materials that may be identified during construction of the Project and explain the importance of and legal basis for the protection of significant archaeological resources. Each worker shall also learn the proper procedures to follow in the event that cultural resources or human remains are uncovered during ground-disturbing activities. These procedures include work curtailment or redirection, and the immediate contact of the on-call archaeologist and if appropriate, Tribal representative. Necessity of training attendance shall be stated on all construction plans. **MM-CUL-2. On-Call Archaeological Construction Monitoring.** In consideration of the general sensitivity of the Project site for cultural resources, a qualified archaeologist shall be retained to conduct spot monitoring as well as on call response in the case of an inadvertent discovery of archaeological resources. A qualified archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards, shall oversee and adjust monitoring efforts as needed (increase, decrease, or discontinue monitoring frequency) based on the observed potential for construction activities to encounter cultural deposits. The archaeologist shall be responsible for maintaining monitoring logs. Following the completion of construction, the qualified archaeologist shall provide an archaeological monitoring report to the lead agency	

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		and the SCCIC with the results of the cultural monitoring program. **MM-CUL-3 Inadvertent Discovery of Archaeological Resources.** In the event that archaeological resources (sites, features, or artifacts) are exposed during construction activities for the Project, all construction work occurring within 60 feet of the find shall immediately stop until a qualified archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards, can evaluate the significance of the find and determine whether or not additional study is warranted. Work on the other portions of the Project outside of the buffered area may continue during this assessment period. Depending upon the significance of the find under the California Environmental Quality Act (14 CCR 15064.5(f); California PRC Section 21082), the archaeologist may simply record the find and allow work to continue. If the discovery proves significant under CEQA, additional work, such as preparation of an archaeological treatment plan, testing, or data recovery, may be warranted. If the discovery is Native American in nature, consultation with and/or monitoring by a Tribal representative may be necessary.	
Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	Potentially Significant	MM-CUL-1 through MM-CUL-3	Less-than-Significant with Mitigation Incorporated
Would the project disturb any human remains, including those interred outside of dedicated cemeteries?	Less-than-Significant Impact	No mitigation required.	Less-than-Significant
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			

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
cultural value to a California Native American tribe, and that is:			
a. 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)? AND b. 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?	Potentially Significant	MM-TCR-1. In the event that cultural resources are discovered during Project activities, all work shall follow protocols outlined under MM-CUL-3. Additionally, the consulting Tribe(s) shall be contacted regarding any pre-contact and/or historic-era resources of a Native American origin and be provided information after the qualified archaeologist, as defined within MM-CUL-2, makes their initial assessment of the nature of the discovery. Should the discovery be deemed significant, as defined by CEQA (as amended, 2015), and avoidance cannot be ensured, a cultural resources monitoring and treatment plan shall be created by the qualified archaeologist, in coordination with the consulting Tribe(s), and all subsequent discoveries shall be subject to this plan. This plan shall be approved by the Town. This plan shall allow for a monitor to be present representing the consulting Tribe(s) for the remainder of the Project, should the consulting Tribe(s) elect to place a monitor on site. MM-TCR-2. If human remains or funerary objects are encountered during any activities associated with the Project, work in the immediate vicinity (within a 100-foot buffer of the find) shall cease, and the discoveries shall be treated in accordance with state and local regulations, including California Health and Safety Code Section 7050.5, California Public Resources Code Section 5097.98, and the California Code of Regulations Section 15064.5(e). MM-TCR-3. Any and all archaeological/cultural documents created as a part of the Project shall be supplied to the Applicant and Lead Agency for	Less-than-Significant with Mitigation Incorporated

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		dissemination to the consulting Tribe(s). However, access to confidential records from the California Historical Research Information System (CHRIS) (i.e., (isolate records, site records, survey reports, testing reports, etc.) are restricted from disclosure under federal and state laws; thus, researchers must meet access requirements to obtain this data. Access to confidential CHRIS data shall follow the CHRIS THPO Tribal Access Policy (OHP 2019) or have personnel on staff that meet the CHRIS authorized user's requirements (OHP 2016; OHP 2023). Data security/confidentiality of all CHRIS data provided/acquired shall follow the requirements as outlined in the THPO-Tribal Access Policy (OHP 2019). Notwithstanding, non-confidential CHRIS data can be provided for planning purposes and includes a checklist (Summary Records Search) or narrative letter (Extended Records Search) stating whether there are known resources in the study area and offering a recommendation as to sensitivity for recorded and unrecorded cultural resources (OHP 2023). Access to CHRIS information is subject to review and approval of the appropriate Information Center in consultation with the State Historic Preservation Officer[4] (SHPO) (OHP 2016). The Lead Agency and/or Applicant shall, in good faith, consult with the consulting Tribe(s) throughout the life of the Project.	

[4] Pursuant to federal and state law, the California State Historical Resources Commission (SHRC) directs the State Historic Preservation Officer (SHPO) to maintain an inventory of historical resources in California. The SHPO meets this responsibility via the California Historical Resources Information System (CHRIS), which is administered by the Office of Historic Preservation (OHP) under SHPO authority (OHP 2016).

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
Would the project directly or indirectly destroy a unique paleontological resources or site or unique geologic feature?	Potentially Significant	**MM-CUL-4. Paleontological Resources Impact Mitigation Program and Paleontological Monitoring.** Prior to commencement of any grading activity on site, the Project Proponent or Applicant shall retain a qualified paleontologist per the Society of Vertebrate Paleontology (SVP) 2010 guidelines to prepare a Paleontological Resources Impact Mitigation Program (PRIMP) for the Project. The PRIMP shall be approved by the Town prior to commencement of any grading activity. The PRIMP shall be consistent with the SVP 2010 guidelines and outline requirements for preconstruction meeting attendance and worker environmental awareness training; where paleontological monitoring is required within the Project site based on construction plans and/or geotechnical reports; and procedures for adequate paleontological monitoring and discoveries treatment, including paleontological methods (including sediment sampling for microinvertebrate and microvertebrate fossils), reporting, and collections management. The PRIMP shall also include a statement that any fossil lab or curation costs (if necessary due to fossil recovery) are the responsibility of the Project Proponent or Applicant. In addition, a qualified paleontological monitor shall be on site during initial rough grading and other significant ground-disturbing activities (including augering) in areas underlain by geological units with high paleontological resource sensitivity or potential (e.g., Pleistocene alluvium and below a depth of 5 feet below the ground surface in areas underlain by Holocene alluvial fan deposits). No paleontological monitoring is necessary during ground disturbance within artificial fill/disturbed sediments or in areas	Less than Significant with Mitigation Incorporated

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		underlain by plutonic igneous rocks (e.g., granodiorite). In the event that paleontological resources (e.g., fossils) are unearthed during grading, the paleontological monitor will temporarily halt and/or divert grading activity to allow recovery of paleontological resources. The area of discovery will be roped off with a 50-foot radius buffer. Once documentation and collection of the find is completed, the monitor will allow grading to recommence in the area of the find. Upon completion of ground-disturbing activity (and curation of fossils, if necessary), the Project paleontologist shall prepare a final mitigation and monitoring report outlining the results of the mitigation and monitoring program. The report shall include a discussion of the location, duration, and methods of the monitoring, stratigraphic sections, and any recovered fossils, as well as the scientific significance of those fossils and where fossils were curated.	
Would the project result in cumulatively considerable impacts related to cultural, tribal cultural, or paleontological resources?	Potentially Significant	MM-CUL-1 MM-CUL-2 MM-CUL-3 MM-CUL-4 MM-TCR-1 MM-TCR-2 MM-TCR-3	Less-than-Significant with Mitigation Incorporated
Energy			
Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	Less-than-Significant	MM-AQ-2	Less-than-Significant

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	Less-than-Significant	No mitigation required.	Less-than-Significant
Would the project have a cumulative effect on energy resources?	Less-than-Significant	No mitigation required.	Less-than-Significant
Greenhouse Gas Emissions			
Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Significant and Unavoidable	**MM-GHG-1.** The Project Applicant shall implement the following measure in order to reduce operational energy source greenhouse gas (GHG) emissions to the extent feasible: ▪ Design the Project to meet U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) Silver certification or otherwise design the Project to reach equivalent reductions in GHG emissions. Prior to the issue of building permits, documentation demonstrating that the Project has been designed to achieve LEED Silver certification or has otherwise been designed to result in equivalent GHG emission reductions will be submited to the Town's Planning Department. Install Energy Star–rated heating, cooling, lighting, and appliances. ▪ Provide information on energy efficiency, energy-efficient lighting and lighting control systems, energy management, and existing energy incentive programs to future tenants of the Project. ▪ Structures shall be equipped with outdoor electric outlets in the front and rear of the structures to facilitate use of electrical lawn and garden equipment.	Significant and Unavoidable

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		MM-GHG-2. To reduce water demands and associated energy use, subsequent development proposals within the Project site would be required to implement a Water Conservation Strategy and demonstrate a minimum 20% reduction in indoor and outdoor water usage when compared to baseline water demand (total expected water demand without implementation of the Water Conservation Strategy). The Town shall approve the Water Conservation Strategy prior to the issuance of building permits for the Project. Included in the Water Conservation Strategy, the Project Applicant shall provide building plans that include the following water conservation measures: ▪ Install low-water use appliances and fixtures ▪ Restrict the use of water for cleaning outdoor surfaces and prohibit systems that apply water to non-vegetated surfaces ▪ Implement water-sensitive urban design practices in new construction ▪ Install rainwater collection systems where feasible	
Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Significant and Unavoidable	MM-AQ-2 MM-GHG-1 MM-GHG-2	Significant and Unavoidable
Would the project have a cumulative effect on greenhouse gas emissions?	Significant and Unavoidable	MM-AQ-1 MM-GHG-1 MM-GHG-2	Significant and Unavoidable
Hazards and Hazardous Materials			
Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of	Less-than-Significant	No mitigated required.	Less-than-Significant

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
hazardous materials?			
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?	Less-than-Significant	No mitigated required.	Less-than-Significant
Would the project have a cumulative effect on hazards or hazardous materials?	Less-than-Significant	No mitigated required.	Less-than-Significant
Hydrology and Water Quality			
Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	Less-than-Significant	No mitigated required.	Less-than-Significant
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?	Less-than-Significant	No mitigated required.	Less-than-Significant
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:	Less-than-Significant	No mitigated required.	Less-than-Significant
i. result in substantial erosion or siltation on or off site;	Less-than-Significant	No mitigated required.	Less-than-Significant
ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site;	Less-than-Significant	No mitigated required.	Less-than-Significant
iii. create or contribute runoff water which would exceed the capacity of existing or	Less-than-Significant	No mitigated required.	Less-than-Significant

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or			
iv. impede or redirect flood flows?	Less-than-Significant	No mitigated required.	Less-than-Significant
Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	Less-than-Significant	No mitigated required.	Less-than-Significant
Would the project have a cumulative effect on hydrology or water quality resources?	Less-than-Significant	No mitigated required.	Less-than-Significant
Land Use and Planning			
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?	Less-than-Significant	No mitigation required.	Less-than-Significant
Would the project have a cumulative effect on land use resources?	Less-than-Significant	No mitigation required.	Less-than-Significant
Mineral Resources			
Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	No Impact	No mitigation required.	No Impact
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?	No Impact	No mitigation required.	No Impact
Would the project have a cumulative effect on mineral resources?	Less-than-Significant	No mitigation required.	Less-than-Significant

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
Noise			
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?	Less-than-Significant	No mitigation required.	Less-than-Significant
Would the project result in generation of excessive groundborne vibration or groundborne noise levels?	Less-than-Significant	No mitigation required.	Less-than-Significant
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?	No Impact	No mitigation required.	No Impact
Would the project have a cumulative effect on noise resources?	No Impact	No mitigation required.	No Impact
Public Services			
Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental 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:			
Fire protection?	Less-than-Significant	No mitigation required.	Less-than-Significant
Police protection?	Less-than-Significant	No mitigation required.	Less-than-Significant
Would the project have a cumulative effect on public services resources?	Less-than-Significant	No mitigation required.	Less-than-Significant
Transportation			
Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway,	Less-than-Significant	No mitigation required.	Less-than-Significant

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
bicycle, and pedestrian facilities?			
Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	Less-than-Significant	No mitigation required.	Less-than-Significant
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)?	Less-than-Significant	No mitigation required.	Less-than-Significant
Would the project result in inadequate emergency access?	Less-than-Significant	No mitigation required.	Less-than-Significant
Would the project have a cumulative effect on transportation resources?	Less-than-Significant	No mitigation required.	Less-than-Significant
Utilities and Service Systems			
Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	Less-than-Significant	No mitigation required.	Less-than-Significant
Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	Less-than-Significant	No mitigation required.	Less-than-Significant
Would the project result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	Less-than-Significant	No mitigation required.	Less-than-Significant

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
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?	Less-than-Significant	No mitigation required.	Less-than-Significant
Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	Less-than-Significant	No mitigation required.	Less-than-Significant
Would the project have a cumulative effect on utilities and/or service systems resources?	Less-than-Significant	No mitigation required.	Less-than-Significant

Significant and Unavoidable Impacts

As identified in Table 1-1, the Project would result in significant and unavoidable impacts with regard to air quality and GHG emissions. These impacts are discussed in further detail below.

- **Air Quality.** The Project would exceed the numerical thresholds of significance established by the Mojave Desert Air Quality Management District for emissions of oxides of nitrogen, and particulate matter with an aerodynamic diameter less than or equal to 10 microns. As such, the Project would potentially result in health effects associated with those pollutants. Although mitigation measures have been recommended to minimize operational-related air quality impacts (MM-AQ-2) no feasible mitigation measures beyond those already identified exist that would reduce these emissions to levels that are less than significant. Therefore, even with the incorporation of mitigation measures MM-AQ-1 through MM-AQ-3, long-term impacts associated with a cumulatively considerable net increase of criteria pollutants for which the Project region is non-attainment would be significant and unavoidable, as would their potential health effects. On this basis, the Project is considered to potentially conflict with the Federal Particulate Matter Attainment Plan and Ozone Attainment Plan for the Mojave Desert Air Basin.
- **Greenhouse Gas Emissions.** Construction and operation of the Project would result in the generation of approximately 79,045 metric tons of carbon dioxide (CO_2) equivalent, which would exceed the numerical GHG threshold established by the South Coast Air Quality Management District of 3,000 metric tons of CO_2 equivalent per year. While the Project is located within the jurisdiction of the Mojave Desert Air Quality Management District, because the South Coast Air Quality Management District's thresholds are more stringent and are backed by substantial evidence from an expert agency, the South Coast Air Quality Management District's recommended thresholds have been utilized for determining the significance of the Project's GHG emission impacts. Implementation of mitigation measures MM-AQ-2, MM-GHG-1, and MM-GHG-2 would also reduce operation-related GHG emissions. However, the effectiveness of the mitigation and the associated emission reductions cannot be accurately quantified at this time and GHG emissions impacts are inherently cumulative in nature. As such, impacts on the project-level and cumulatively would remain significant and unavoidable.

1.7 Alternatives to the Project

Section 15126.6(a) of the CEQA Guidelines states that 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," as well as provide an evaluation of "the comparative merits of the alternatives." Under CEQA Guidelines Section 15126.6(a), an EIR does not need to consider alternatives that are not feasible, nor does it need to address every conceivable alternative to the project. The range of alternatives "is governed by the 'rule of reason' that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice" (14 CCR 15126.6[f]).

No Development Alternative (Alternative 1)

Under Alternative 1, construction of the Project would not occur. The Project site would remain unchanged, and development activities related to construction and operation of the proposed industrial/warehouse buildings, associated loading docks, truck and vehicle parking, landscaped areas, and all other proposed on- and off-site improvements would not occur. Consistent with the existing conditions, the Project site would continue to be predominantly undeveloped. Under Alternative 1, the Project site would remain vacant, undeveloped land,

although a portion of the site would presumably continue to be used for stockpiling activities, including the metal storage structure associated with the stockpiling activities. Additionally, the Project site would likely continue to be subject to illegal dumping, trespassing, and unpermitted off-road vehicle use, similar to the existing conditions.

It is feasible that no development would occur on the Project site in the near term or long term due to development types being driven by market conditions. Current market conditions are favorable to warehouse distribution in the Apple Valley area, whereas other development types such as large-format retail and service uses would be driven by local population making the development of those uses less economically feasible. Residential and neighborhood commercial development would not be allowed by right on the Project site and would require a General Plan amendment and a zoning change. The proximity of the Calportland mine to the Project site also makes it an unlikely location for residential or neighborhood commercial development.

No Project Alternative (Alternative 2)

Should the proposed Project not be approved, the Project site would likely be developed with another use that is allowed by the current General Plan and Zoning Ordinance. Under Alternative 2, the Project site would be developed with other land uses, consistent with the property's C-R (I-N) designation. Due to the Project site size of approximately 178 acres, it is feasible to assume an alternative development would be a large-scale retail use.

The Regional Commercial land use category allows retail uses that serve not only the residents and businesses of Apple Valley, but also of the surrounding region. Permitted uses in this designation include auto malls, regional malls, business parks, factory stores and outlets, entertainment commercial, hotels and motels, restaurants, electric vehicle (EV) charging stations, and institutional and public uses. The minimum size for a Regional Commercial project site is 10 acres.

No zoning variances are being requested as part of the Project, and thus, the Project would be constructed consistent with the design requirements set forth for the C-R (I-N) designation in the Apple Valley General Plan and Apple Valley Municipal Code. It is assumed that Alternative 2 would involve development of a land use that would be permissible either by right or by a conditional use permit, including the aforementioned land uses listed above. For purposes of this analysis and given the Project site's proximity to major regional transportation routes (e.g., I-15 and other local truck routes), it is assumed that Alternative 2 would consist of a 600,000-square-foot regional mall on an approximately 80-acre portion of the Project site. Such an alternative could take the form of many smaller buildings or one large building. As discussed in Section 7.3, Project Alternatives Considered by Rejected, of this EIR, land uses that are expressly not allowed in the C-R zone—specifically residential—would not be considered under Alternative 2.

Electric Vehicle Charging Station Alternative (Alternative 3)

Under Alternative 3, the Project site would be developed with other land uses, consistent with the property's C-R (I-N) designation.

For purposes of this analysis and given the Project site's proximity to major regional transportation routes (e.g., I-15 and other local truck routes), it assumed that Alternative 3 would consist of a light-duty EV charging station with 100 charging stalls including solar canopies, associated battery/electrical infrastructure, and storage on approximately 25 acres of the Project site. Additionally, Alternative 3 would not include commercial amenities such as fast-food restaurants or convenience stores but would include restrooms for customers. Because

Alternative 3 would be constructed on a 25-acre portion of the 178-acre Project site, stockpiling activities would likely continue on the approximately 20-acre portion at the northeast corner of the Project site, and the metal storage structure is assumed to remain in place.

Reduced Development Intensity Alternative (Alternative 4)

Presently, the only approach to reducing the Project's operational-related air quality and GHG emission impacts would be to reduce the total number of daily trips and employees generated by the Project. As such, in an effort to reduce the Project's significant and unavoidable impacts, the Town considered a Reduced Development Intensity Alternative (Alternative 4).

Under Alternative 4, the Project would be constructed and operated as planned on the Project site, with the exception that the size of the proposed development would be reduced by 50%, equating to an industrial/warehouse project consisting of approximately 1,302,223 square feet, compared to the Project's 2,604,446 square feet. Since the building footprint would be reduced by 1,302,223 square feet (approximately 30 acres), this extra space on the Project site would remain vacant. All other on- and off-site improvements proposed as part of the Project are assumed to still be required under Alternative 4.

Environmentally Superior Alternative

Section 15126(e)(2) of the State CEQA Guidelines requires an EIR to identify an "environmentally superior alternative." If the No Project/No Development Alternative is the environmentally superior alternative, the EIR must also identify an environmentally superior alternative from among the other Project alternatives.

Three of the four Project alternatives considered herein would lessen at least one environmental impact relative to the Project. Alternative 2 would not reduce any environmental impact relative to the Project. As previously addressed, as the No Project/No Development Alternative is the environmentally superior alternative, this EIR analysis also evaluates another environmentally superior alternative among the remaining alternatives. Table 7-2 of this EIR provides a comparison of the Project with the Project alternatives based on the environmental topic areas addressed in Chapter 4 of this EIR. Table 7-3 of this EIR presents how the Project and each of the Project alternatives compare in terms of meeting the Project objectives.

Based on a comparison of Alternative 2, Alternative 3, and Alternative 4, significant and unavoidable environmental impacts associated with air quality and GHG emissions would be avoided under Alternative 3, whereas impacts under Alternatives 2 and 4, would be lessened but not avoided. Impacts to aesthetics, energy, noise, and public services would be lessened under Alternative 3 compared to Alternative 2 and similar compared to Alternative 4. Impacts associated with biological resources; cultural, tribal cultural, and paleontological resources; hazards and hazardous materials; hydrology and water quality; transportation; and utilities and services systems would be similar under Alternative 2, Alternative 3, and Alternative 4 comparatively. Overall, based on these findings, Alternative 3 would be considered the environmentally superior alternative.

1.8 Areas of Controversy/Issues to be Resolved

The scope of this EIR includes the potential environmental impacts identified in the Initial Study/Notice of Preparation (IS/NOP) that was available for public review from September 18, 2023, through October 17, 2023; comments received during a public scoping meeting held on October 5, 2023, at Apple Valley Town Hall; and agency and public written comment received in response to the NOP.

A summary of these written comment letters are provided in Table 1-2. The written comments and the NOP are included as Appendix A of this EIR.

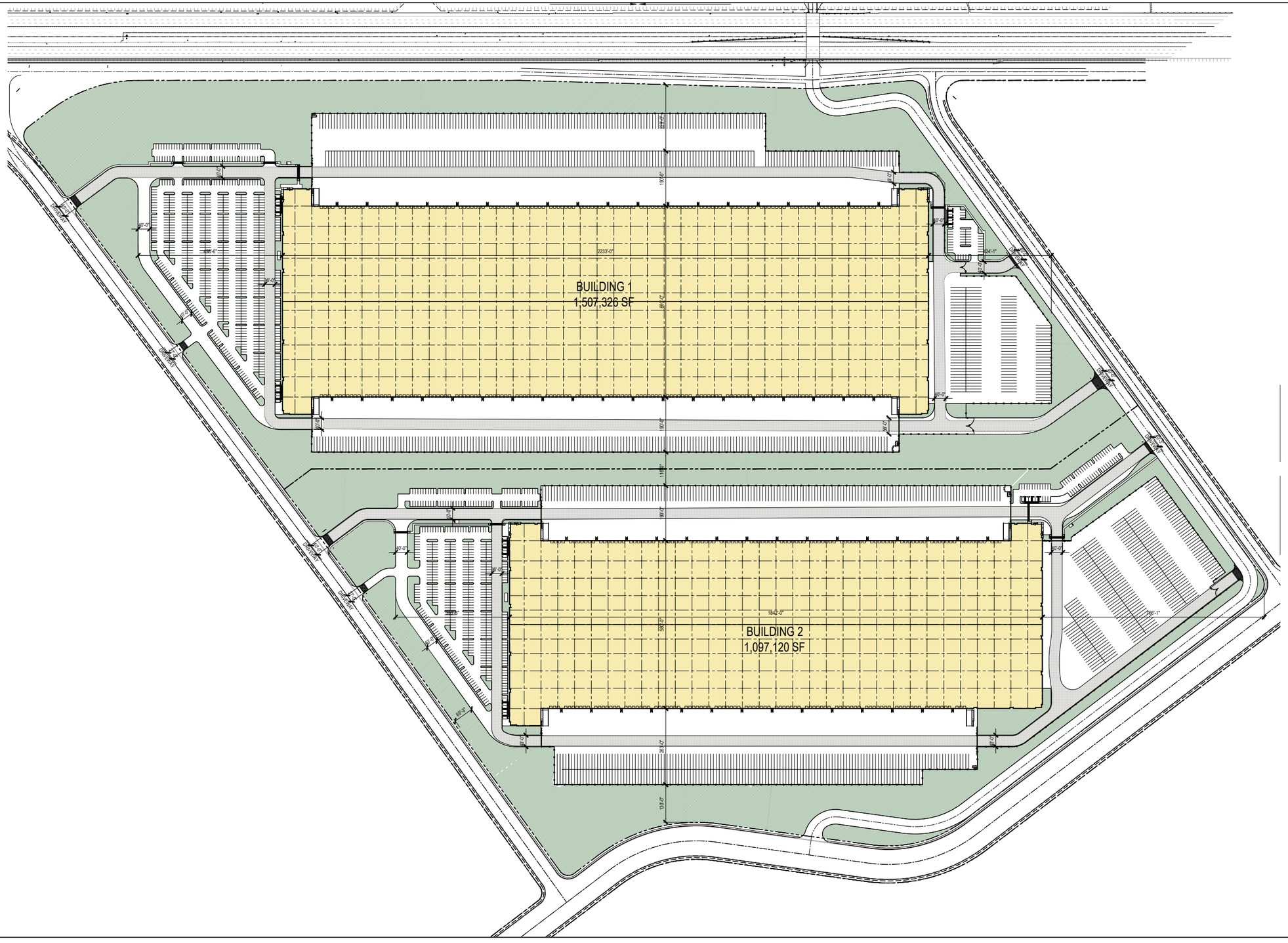
Table 1-2. Summary of Initial Study/Notice of Preparation Comments

Commenter	Date	Summary of Environmental Issues Raised	EIR Chapter/Section Where Comment is Addressed
State Agency			
Native American Heritage Commission	September 25, 2023	▪ Provides regulatory requirements related to potential impacts to cultural and tribal cultural resources and provides guidance on consultation obligations with potentially affected tribes	Section 4.4, Cultural, Tribal Cultural, and Paleontological Resources
Mojave Desert Air Quality Management District	September 28, 2023	▪ Provides recommendations for mitigation related to fugitive dust control during construction	Section 4.2, Air Quality
Private Organizations and Members of the Public			
Californians Allied for a Responsible Economy (CARE CA)	October 17, 2023	▪ Provides recommendations for analysis of the Project since an end user has not been identified ▪ Requests full mitigation of impacts related to air quality and greenhouse gas emissions	Section 4.2, Air Quality; Section 4.6, Greenhouse Gas Emissions; Section 4.13 Transportation
Center for Community Action and Environmental Justice (CCAEJ)	October 11, 2023	▪ Concerns regarding potential impacts of truck traffic on road design safety, air quality impacts, and greenhouse gas emissions	Section 4.2, Air Quality; Section 4.6, Greenhouse Gas Emissions; Section 4.13, Transportation

Issues to be Resolved by Lead Agency

Section 15123(b)(3) of the CEQA Guidelines requires that an EIR contain a discussion of issues to be resolved. With respect to the proposed Project, the key issues to be resolved include decisions by the Town, as lead agency, as to the following:

- Whether this environmental document adequately describes the environmental impacts of the Project.
- Whether the recommended mitigation measures should be modified and/or adopted.
- Whether there are other mitigation measures or alternatives that should be considered for the Project besides those identified in the Draft EIR.



SOURCE: LHA, May 2023

FIGURE 1-1

Site Plan

Inland Empire North Logistics Center Apple Valley Project

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2 Introduction

2.1 Purpose of the California Environmental Quality Act Process

This environmental impact report (EIR) was prepared in accordance with the California Environmental Quality Act (CEQA) to evaluate the potential environmental effects associated with implementation of the Inland Empire North Logistics Center Project (Project). It was prepared in accordance with Title 14, Section 15000 et seq. of the California Code of Regulations (CEQA Guidelines), and the rules, regulations, and procedures for implementing CEQA as adopted by the Town of Apple Valley (Town). Consistent with CEQA Guidelines Section 15161, this document is a project-level EIR and evaluates the potential environmental impacts associated with a specific project. As the lead agency for the Project, the Town must complete an environmental review to determine if the Project could potentially result in significant adverse environmental effects. A detailed description of the Project is provided in Chapter 3, Project Description.

CEQA Guidelines Section 15002 states that the basic purposes of CEQA are to:

- Inform governmental decision makers and the public about the potential significant environmental effects of proposed government actions (including the discretionary approval of development projects);
- Identify the ways that environmental damage can be avoided or significantly reduced; and
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible.

If a project will be approved involving significant environmental effects, the lead agency must also disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose.

This EIR provides project-level analysis of the potential environmental effects related to implementation of the Project. The level of impact analysis in this EIR corresponds to the degree of specificity deemed appropriate in accordance with CEQA Guidelines Section 15146. This EIR addresses the potentially significant environmental impacts that could occur as a result of construction and operation of the Project. This document also identifies appropriate and feasible mitigation measures, where necessary, and includes Project alternatives that could be adopted to reduce or avoid potential significant environmental effects.

This EIR is an informational document for public agencies and members of the public, allowing informed decisions to be made regarding the purpose, objectives, and components of the Project. This EIR is the primary reference document for the formulation and implementation of a mitigation monitoring and reporting program for the Project, in compliance with California Public Resources Code (PRC), Section 21081.6.

2.2 Legal Authority and Lead Agency

This EIR was prepared in accordance with all criteria, standards, and procedures of CEQA (PRC Section 21000 et seq.) and the CEQA Guidelines (14 CCR 15000 et seq.).

Pursuant to CEQA Section 21067 and CEQA Guidelines Article 4 and Section 15367, the Town 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 Town has the obligation to (1) ensure that this EIR was completed in accordance with CEQA; (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 Town's independent judgment; (4) ensure that all significant impacts 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 infeasible and citing the specific benefits of the Project that outweigh its unavoidable adverse effects (14 CCR 15090–15093).

Pursuant to CEQA Guidelines Sections 15040 through 15043, and upon completion of the CEQA review process, the Town will have the legal authority to do any of the following:

- Approve the Project as proposed;
- Require feasible changes in any or all activities involved in the Project to substantially lessen or avoid significant effects on the environment;
- Consider feasible alternatives to avoid one or more significant effects on the environment that would occur if the Project was approved as proposed;
- Disapprove the Project, if necessary, to avoid one or more significant effects on the environment that would occur if the Project was approved as proposed; or
- Approve the Project even though the Project would cause a significant effect on the environment if the Town 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 all discretionary and ministerial actions related to the Project.

This EIR is an informational document intended for use by Town decision makers, trustee, and responsible agencies, and members of the general public in evaluating the physical environmental impacts of the Project. This EIR is the primary reference document for the formulation and implementation of a mitigation monitoring and reporting program for the Project, in compliance with PRC Section 21081.6. Environmental impacts cannot always be mitigated to a level considered less than significant. In accordance with Section 15093(b) of the CEQA Guidelines, if a lead agency approves a project that has significant impacts that are not substantially mitigated (i.e., significant unavoidable impacts), the agency shall state in writing the specific reasons for approving the Project, based on the final CEQA documents and any other information in the public record. This is defined in Section 15093 of the CEQA Guidelines as "a statement of overriding considerations."

2.3 Responsible and Trustee Agencies

PRC Section 21104 requires that all EIRs be reviewed by state responsible and trustee agencies (see also 14 CCR 15082 and 15086[a]). As defined by CEQA Guidelines Section 15381, "the term 'Responsible Agency' includes all public agencies other than the Lead Agency which 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."

For this Project, the California Department of Fish and Wildlife is a trustee and responsible agency, because the Project has the potential to impact plant and wildlife species that are managed and protected by the state. The Regional Water Quality Control Board is also a responsible agency because the Project has the potential to impact drainages that may be under its jurisdiction.

2.4 Summary of the Project Analyzed in this Environmental Impact Report

The Project would include construction of two industrial/warehouse buildings and associated improvements on an approximately 178-acre site. Building 1 would be approximately 1,507,326 square feet while Building 2 would be approximately 1,097,120 square feet. The Project's associated improvements would include loading docks, truck and vehicle parking, and landscaped areas.

2.4.1 Requested Approvals

The following discretionary and ministerial actions under the jurisdiction of the Town would be required. This EIR covers all state and local government, and quasi-government approvals that may be needed to implement the Project, whether or not they are explicitly listed in this section or elsewhere in this EIR (14 CCR 15124[d]). Details regarding each of these approvals is provided in Chapter 3.

Discretionary Approvals

The Planning Commission will consider and make a recommendation to Town Council on all requested entitlements. The Town Council will review and approve or deny the requested entitlements.

- **Consider Certification of EIR.** The EIR will be considered and certified or rejected. If certified, appropriate CEQA Findings and the mitigation monitoring and reporting program will be adopted.
- **Development Permit Review.** A review of Development Permit No. DP2022-014 will be held in order to consider the Project, including all requested entitlements.
- **General Plan Amendment.** An amendment to the Circulation Element of the Town's General Plan to re-align Apple Valley Road and change the designation of Norco Road.
- **Tentative Parcel Map.** A tentative map is required to re-align Apple Valley Road eastward and also to divide the single parcel into two roughly equal-sized parcels to accommodate one building on each new lot.
- **Development Agreement**. A Development Agreement between the Town and the Project Applicant pursuant to Section 9.04 of the Apple Valley Municipal Code may be considered. The Development Agreement would provide sufficient time for the development of the Project by locking in development standards and extending applicable vesting periods for the Project's entitlements and would also to establish a mechanism whereby the Project Applicant would be partially reimbursed for costs associated with public improvements constructed that would be used by future developments. Reimbursements would be funded by developers of these future developments. The Development Agreement does not contemplate any additional physical improvements, other than those already identified in the Project description, analysis, and proposed mitigation for the Project. Approval of the Development Agreement is not required for development of the Project.

Ministerial Approvals

Town of Apple Valley Subsequent Implementing Approvals

- Approvals for water and sewer infrastructure
- Remove and relocate on-site protected native desert plants
- Issue grading permits
- Issue building permits
- Issue encroachment permits

2.4.2 Other Agency Approvals

In addition to the approvals required by the Town to implement the Project, the Project would also require permits from other agencies. The following permits are anticipated to be required, but this list may not be exhaustive and may be refined throughout the Project planning process.

- California Department of Transportation. An **Encroachment Permit** from the California Department of Transportation (Caltrans) would be required to accommodate the possible improvements to the I-15/Stoddard Wells Road on-/off-ramps.
- California Department of Fish and Wildlife. An **Incidental Take Permit** from the California Department of Fish and Wildlife (CDFW) would be required to remove western Joshua trees that are present on the Project site. A **Lake and Streambed Alteration Agreement** from CDFW would also be required to modify existing drainages that are present on the Project site.
- Regional Water Quality Control Board. A **Waste Discharge Requirements Permit** from the Regional Water Quality Control Board (RWQCB) would be required to modify existing drainages that are present on the Project site.

2.4.3 Project of Statewide, Regional, or Area-Wide Environmental Significance

CEQA Guidelines Section 15206 identifies the types of projects considered to be of statewide, regional, or area-wide significance. When a project is so classified, its EIR must be submitted to the State Clearinghouse of the Governor's Office of Planning and Research, and the appropriate metropolitan area council of governments. This Project meets the following criteria of a project of statewide, regional, or area-wide significance:

- The Project has the potential for causing significant environmental effects extending beyond the Town of Apple Valley.

2.5 Scope of this Environmental Impact Report

2.5.1 Notice of Preparation Scoping Process

The purpose of this EIR is to evaluate the potential environmental impacts associated with implementation of the Project. The Town concluded that the Project could potentially have direct or indirect adverse effects on the

environment. Accordingly, the Town determined the need for preparation of an EIR for the Project. The scope of this EIR includes the potential environmental impacts identified in the Initial Study/Notice of Preparation (IS/NOP) that was available for public review from September 18, 2023, through October 17, 2023; comments received during a public scoping meeting held on October 5, 2023, at Apple Valley Town Hall and by virtual meeting; and agency and public written comment received in response to the NOP.

A summary of these written comment letters is provided in Table 2-1. The written comments and the NOP are included as Appendix A of this EIR.

Table 2-1. Summary of Initial Study/Notice of Preparation Comments

Commenter	Date	Summary of Environmental Issues Raised	EIR Chapter/Section Where Comment is Addressed
Agencies			
Native American Heritage Commission	September 25, 2023	▪ Provides regulatory requirements related to potential impacts to cultural and tribal cultural resources and provides guidance on consultation obligations with potentially affected tribes	Section 4.4 Cultural, Tribal Cultural, and Paleontological Resources
Mojave Desert Air Quality Management District	September 28, 2023	▪ Provides recommendations for mitigation related to fugitive dust control during construction	Section 4.2, Air Quality
Organizations and Individuals			
Californians Allied for a Responsible Economy (CARE CA)	October 17, 2023	▪ Provides recommendations for analysis of the Project since an end user has not been identified ▪ Requests full mitigation of impacts related to air quality and greenhouse gas emissions	Section 4.2, Air Quality; Section 4.6, Greenhouse Gas Emissions; Section 4.13 Transportation
Center for Community Action and Environmental Justice (CCAEJ)	October 11, 2023	▪ Concerns regarding potential impacts of truck traffic on road design safety, air quality impacts, and greenhouse gas emissions	Section 4.2, Air Quality; Section 4.6, Greenhouse Gas Emissions; Section 4.13, Transportation

2.5.2 Environmental Issues Determined Not to Be Significant

Pursuant to CEQA, the discussion of potential environmental impacts is focused on those impacts that could be significant or potentially significant. CEQA allows the lead agency to limit the detail of discussion of the environmental impacts that are not considered potentially significant (PRC Section 21100; 14 CCR 15126.2[a] and 15128). CEQA requires that the discussion of any significant environmental effect be limited to substantial, or potentially substantial, adverse changes in physical conditions that exist within the affected area, as defined in PRC Section 21060.5. In accordance with CEQA Guidelines Section 15143, environmental impacts dismissed in an analysis as clearly insignificant and unlikely to occur need not be discussed further in the EIR unless the lead agency subsequently receives information inconsistent with the finding.

As part of the NOP scoping process, environmental issue areas identified in the IS prepared for the Project that were found to have no impact or a less-than-significant impact are provided in the IS (Appendix A), and Chapter 5, Effects Found Not to Be Significant, of this EIR. Thus, with the exception of the impact discussion in the IS Study and Chapter 5 of this EIR, these environmental issues are not discussed at further length in this EIR:

- Agricultural and Forestry Resources
- Geology and Soils (with the exception of paleontological resources, which is discussed in Section 4.4, Cultural, Tribal Cultural, and Paleontological Resources, of this EIR)
- Hazards and Hazardous Materials (with regard to [c] hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste within 0.25 miles of an existing or proposed school; [d] hazardous materials sites compiled pursuant to Government Code Section 65962.5; [e] airport land use plans; [f] interference with emergency response or evacuation plans; and [g] exposure of people or structures to a risk of loss from wildfires)
- Land Use and Planning (with regard to the physical division of an established community)
- Population and Housing
- Public Services (with regard to schools, parks, and other public services)
- Recreation
- Wildfire

2.5.3 Environmental Issues Determined to be Potentially Significant

Pursuant to CEQA and CEQA Guidelines Section 15064, the discussion of potentially significant environmental impacts is focused in this EIR on those impacts that the lead agency has determined could be potentially significant. A determination of those environmental impacts that would be potentially significant was made for the Project based on a review of comments received as part of the NOP scoping process and additional research and analysis of relevant information during preparation of this EIR.

The scope of this EIR includes environmental issues identified by the Town during the preparation of the NOP, as well as issues raised by public agencies and members of the public in response to the NOP. The following environmental issue areas were determined to be potentially significant and are addressed at further length in this EIR:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural, Tribal Cultural, and Paleontological Resources
- Energy
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Public Services
- Transportation
- Utilities and Service Systems

2.6 Organization of this Environmental Impact Report

This EIR contains all of the information required to be included in an EIR, as specified by the CEQA Statutes and Guidelines (PRC Section 21000 et seq.; 14 CCR 15000 et seq.). The following provides a quick reference in locating the CEQA-required sections within this document:

- **Chapter 1: Executive Summary.** The Executive Summary provides a summary of the Project and Project alternatives, including a summary of the Project and cumulative impacts, recommended mitigation measures, and the level of significance after mitigation for each environmental issue.
- **Chapter 2: Introduction.** The Introduction provides an overview of the Project and the CEQA process, and describes the purpose, scope, and components of this EIR.
- **Chapter 3: Project Description.** The Project Description provides a detailed description of the Project, including the location and Project characteristics. The intended uses of this EIR, Project background, Project objectives, and required Project approvals are also addressed.
- **Chapter 4: Environmental Analysis.** The Environmental Analysis chapter analyzes the environmental impacts of the Project. Impacts are organized into major environmental topic areas. Each topic area includes a description of the environmental setting, regulatory setting, significance criteria, individual and cumulative impacts, mitigation measures, and level of significance after mitigation. The following specific environmental areas are addressed in Chapter 4:
  - ***Section 4.1*** – Aesthetics
  - ***Section 4.2*** – Air Quality
  - ***Section 4.3*** – Biological Resources
  - ***Section 4.4*** – Cultural, Tribal Cultural, and Paleontological Resources
  - ***Section 4.5*** – Energy
  - ***Section 4.6*** – Greenhouse Gas Emissions
  - ***Section 4.7*** – Hazards and Hazardous Materials
  - ***Section 4.8*** – Hydrology and Water Quality
  - ***Section 4.9*** – Land Use and Planning
  - ***Section 4.10*** – Mineral Resources
  - ***Section 4.11*** – Noise
  - ***Section 4.12*** – Public Services
  - ***Section 4.13*** – Transportation
  - ***Section 4.14*** – Utilities and Service Systems
- **Chapter 5: Effects Found Not to Be Significant.** The Effects Found Not to Be Significant chapter provides a summary of Project impacts that have been determined, through preparation of the IS/NOP, to result in less-than-significant or no impact, and therefore, further discussion is not warranted. A brief discussion of these Project impacts is provided in this chapter.
- **Chapter 6: Other CEQA Considerations.** The Other CEQA Considerations chapter provides a summary of significant environmental impacts, including unavoidable, irreversible, and growth-inducing impacts.
- **Chapter 7: Alternatives.** The Alternatives chapter provides a comparison between the Project impacts and three Project alternatives: (1) the No Project/No Development Alternative, (2) No Project/Other Development Project Alternative, and (3) the Reduced Development Intensity Alternative.

- **Chapter 8: List of Preparers.** The List of Preparers chapter provides a list of the organizations, persons consulted, and various individuals who contributed to the preparation of this EIR. This section also includes a list of the lead agency personnel and technical consultants used to prepare this EIR.
- **Appendices.** The technical appendices contain the NOP (including public comments) and technical studies prepared to support the analyses and conclusions in this EIR.

The Final EIR will be prepared after the public review period for this EIR has been completed. The Final EIR will include comments and recommendations received on the EIR during the public review period; a list of persons, organizations, and public agencies commenting on the EIR; written responses to significant environmental issues identified in the comments received; and any other relevant information added by the Town.

2.7 Documents Incorporated by Reference

Pursuant to CEQA Guidelines Section 15150, this EIR has referenced several technical studies, analyses, and previously certified environmental documents. Information from these documents, incorporated by reference, is briefly summarized in the appropriate chapters and sections. The documents that were used to prepare this EIR include the following:

- Town of Apple Valley General Plan (2009)
- Apple Valley Municipal Code (Code of Ordinances) (2023 [Updated])
- County of San Bernardino Countywide Plan (General Plan) (2020)

These reference documents, in accordance with CEQA Guidelines Section 15150(b), are available for review at the following locations:

Town of Apple Valley General Plan

https://www.applevalley.org/services/planning-division/2009-general-plan

Town of Apple Valley Code of Ordinances

https://library.municode.com/ca/apple_valley/codes/code_of_ordinances?nodeId=15357

County of San Bernardino Countywide Plan (General Plan)

http://countywideplan.com/

2.8 Documents Prepared for the Project

The following technical studies and analyses were prepared for the Project and Project site and are incorporated into the technical appendices of this EIR:

- Initial Study, Notice of Preparation, and Scoping Comments, Appendix A
- Air Quality and Greenhouse Gas Emissions, and Energy Modeling Inputs and Outputs, Appendix B-1
- Health Risk Assessment, Appendix B-2
- Health Effects of Criteria Air Pollutants, Appendix B-3

- Biological Conditions Report, Appendix C-1
- Burrowing Owl Relocation Plan, Appendix C-2
- *Confidential* Cultural Resources Technical Report, Appendix D
- Paleontological Resources Report, Appendix E
- Geotechnical Reports, Appendix F
- Phase I Environmental Site Assessments, Appendix G
- Preliminary Hydrology Report, Appendix H-1
- Preliminary Water Quality Management Plan, Appendix H-2
- Water Supply Assessment, Appendix H-3
- Field Noise Data, Appendix I-1
- Construction Noise Modeling Data, Appendix I-2
- Traffic Noise Modeling, Appendix I-3
- On-Site Noise Modeling Data, Appendix I-4
- Transportation Impact Analysis, Appendix J

2.9 Review of the Draft Environmental Impact Report

Upon completion of this Draft EIR, the Town prepared and filed a Notice of Completion with the Governor's Office of Planning and Research, State Clearinghouse to start the public review period (PRC Section 21161). Concurrent with the Notice of Completion, the Town distributed a Notice of Availability in accordance with CEQA Guidelines Section 15087. The Notice of Availability was mailed to the agencies, organizations, and individuals who previously requested in writing to receive a copy. This Draft EIR was distributed to responsible and trustee agencies, other affected agencies, surrounding cities and municipalities, and all interested parties requesting a copy of this document in accordance with PRC Section 21092(b)(3). During the public review period, this Draft EIR, including the appendices, is available for review at the following locations.

In Person

Apple Valley Town Hall, Planning Department
14955 Dale Evans Parkway
Apple Valley, California 92307

San Bernardino County Library
14901 Dale Evans Parkway
Apple Valley, California 92307

Online

https://www.applevalley.org/services/planning-division/environmental

Agencies, organizations, individuals, and all other interested parties not previously contacted, or who did not respond to the NOP, currently have the opportunity to comment on this Draft EIR during the public review period. Written or email comments on this Draft EIR should be addressed to:

Daniel Alcayaga, Planning Manager
Town of Apple Valley
14955 Dale Evans Parkway
Apple Valley, California 92307
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Upon completion of the public review period, written responses to all substantive environmental comments are prepared and made available prior to the public hearing on the Project before the Town of Apple Valley's Planning Commission, at which the Project, the Final EIR, and requested entitlements are considered for recommendation to the Apple Valley Town Council. The comments received and the responses to those comments will be included as part of the record for consideration for the Project.

3 Project Description

This chapter describes the objectives of the Inland Empire North Logistics Center Apple Valley Project (Project) and the environmental impact report (EIR) and provides a detailed description of the Project characteristics. This chapter also discusses the required development approvals and discretionary actions necessary to implement the Project.

As discussed in further detail below, the Project involves the development of two industrial/warehouse buildings totaling approximately 2,604,446 square feet on an approximate 178-acre site located directly east of Interstate (1) 15, north of Falchion Road and south of Norco Street in the northwestern portion of the Town of Apple Valley (Town). Building 1 would be 1,507,326 square feet while Building 2 would be 1,097,120 square feet. Construction of the Project is anticipated to commence in September 2024 lasting approximately 21 months. Tenants for the proposed industrial warehouse buildings have not yet been identified; however, the Project would operate as a warehouse and/or distribution facility.

3.1 Project Location

The approximately 178-acre Project site is located in the northwestern part of the Town, which is within the Victor Valley Region of San Bernardino County (see Figure 3-1, Regional Location, Figure 3-2, Vicinity Map). The Project site is located directly east of I-15, north of Falchion Road and south of Norco Street. The Project site and its immediate surroundings can be seen in Figure 3-3, Project Aerial. Regional access to the Project site is provided via I-15, which is located adjacent to the Project site's western boundary. Off-site improvements to roadways are located within the vicinity of the Project and would occur at Falchion Road between Outer Highway 15 and Apple Valley Road, Norco Street between Outer Highway 15 and Apple Valley Road, Outer Highway 15 between Falchion Road and Norco Street, and Apple Valley Road between Falchion Road and Norco Street (see Figure 3-4, Overall Site Plan).

The site consists of Assessor's Parcel Number (APN) 0472-031-08. Specifically, the Project site is located in Section 26, Township 6N, Range 4W, as depicted on the U.S. Geological Survey Victorville, California 7.5-minute topographic quadrangle map.

3.2 Environmental Setting

Town of Apple Valley

The Town is approximately 72 square miles in the Victor Valley region of San Bernardino County. The Town is located within the Mojave Desert, which is a region containing desert plains, dry lakebeds, and scattered mountains. The Town of Apple Valley is located primarily on alluvial slopes of the Mojave River floodplain, at the southern edge of the Mojave Desert. Elevations in the Town range from approximately 2,800 feet above sea level near the Mojave River, to approximately 3,200 feet above sea level at the northeast corner of Town. The topography gradually inclines towards the Juniper Flats foothills of the San Bernardino Mountains to the south, as well as to the scattered knolls and mountains to the north and east of the Town. Turtle and Black Mountains are located to the north of the planning area, Fairview Mountain to the northeast and the Granite Mountains to the southeast. Generally, the Town is a rural community with a broad mix of land uses, including housing, commercial, office, industrial, agriculture, and public-serving uses. The majority of the Town contains generally rural residential uses. Commercial uses follow

State Highway 18, Bear Valley Road, and areas along I-15. Industrial uses are located in the northern portion of the Town and along I-15.

The Town is bordered by the City of Victorville to the west, the City of Hesperia to the southwest, and unincorporated County to the north and east. Two highways provide direct access to the Town: I-15 runs north–south on the west side of the Town; and State Highway 18 runs east-west through the center of the Town (Town of Apple Valley 2009).

Existing Project Site

The approximately 178-acre Project site consists of predominantly vacant and undeveloped land, as well as disturbed land and unpaved roads. Approximately 20 acres at the northeast portion of the Project site are currently used for stockpiling soil and similar type materials from off-site mining activities; a metal storage structure associated with the stockpiling activities is located within the stockpiling area. Stockpiling activities would cease upon construction of the Project and the storage structure would be removed from the site. The Project would include approximately 22.4 acres of off-site improvements for roadway improvements and the re-alignment of Apple Valley Road.

Photos of the Project site are included in Figures 3-5A through 3-5G, Existing Conditions. Ground surface cover of the Project site consists of low to moderate densities of native brush and shrub growth, with Joshua trees located throughout the site. The site consists of a series of small rolling hills with surface elevation ranges between approximately 2,820 and 3,020 feet above mean sea level.

According to the Town's General Plan Land Use Map and the Town's Zoning Map, the Project site has a land use and zoning designation of Regional Commercial (C-R) (Town of Apple Valley) (see Figure 3-6, Land Use Designations, and Figure 3-7, Zoning Designations). Additionally, the Project site is located within the Warehouse Distribution Regional Commercial (C-R) Overlay, as designated on the Town's Zoning Map.

Land uses surrounding the Project site consist of vacant land, I-15, unpaved roads, and mining operations. Specific land uses located in the immediate vicinity of the Project site include the following:

- **North:** Various unpaved roads and vacant land
- **East:** Aggregate mining operations
- **South:** Falchion Road, Apple Valley Road, various other unpaved roads, and vacant land
- **West:** I-15 and vacant land

In the broader Project vicinity, development includes industrial uses, the County of San Bernardino Refuse Disposal Site, residential uses, and commercial uses. Figure 3-8, Project Development Setting, depicts existing development within the vicinity of the Project site.

Local connectivity to the Project site from the center of the Town and surrounding urban communities is provided via Apple Valley Road (directly south of the Project site), I-15 (directly east of the Project site), and Highway 18 (approximately 2.1 miles south of the Project site).

Cumulative Setting

In many cases, the impact of an individual project may not be significant, but its cumulative impact may be significant when combined with impacts from other related projects. California Environmental Quality Act (CEQA)

Guidelines Section 15355 defines cumulative impacts as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." CEQA Guidelines Section 15130(b) states that "the discussion [of cumulative impacts] need not provide as great detail as is provided for the effects attributable to the project alone." Section 15130(b) further states that a cumulative impacts discussion "should be guided by standards of practicality and reasonableness."

Cumulative impacts can also occur from the interactive effects of a single project. For example, the combination of noise and dust generated during construction activities can be additive and can have a greater impact than either noise or dust alone. However, substantial cumulative impacts more often result from the combined effect of past, present, and future projects located in proximity to a proposed project. Thus, it is important for a cumulative impacts analysis to be viewed over time and in conjunction with other related past, present, and reasonably foreseeable future projects, the impacts of which might compound or interrelate with those of the project under review.

As provided by CEQA Guidelines Section 15130(b), the following elements are necessary to an adequate discussion of cumulative impacts:

- Either: (A) a list of past, present, and reasonably anticipated future projects producing related or cumulative impacts, including those projects outside the control of the agency; or (B) a summary of projections contained in an adopted general plan or related planning document that is designed to evaluate regional or area wide conditions. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency.
- A summary of the expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available.
- A reasonable analysis of the cumulative impacts of the relevant projects. An EIR shall examine reasonable options for mitigating or avoiding any significant cumulative effects of the proposed projects.

The Draft EIR assesses potential cumulative impacts of the proposed Project in combination with other projects anticipated to occur by the year 2040. The cumulative analysis in this Draft EIR utilizes a combined "list" and "projections" method, pursuant to State CEQA Guidelines Section 15130(b)(1). The list incorporates available information about existing and reasonably foreseeable development in the vicinity of the Project site, including implementation of the North Apple Valley Industrial Specific Plan within the surrounding area under the jurisdiction of the Town as well as the Desert Gateway Specific Plan, located east of the Project site across I-15 within the jurisdiction of the City of Victorville. Proposed and approved projects within the North Apple Valley Industrial Specific Plan and the Desert Gateway Specific Plan and surrounding region consist of the travel center and RV park, known as the Apple Valley I-15 Travel Center Project, located northwest the Project site; the Cordova Complex and Quarry at Pawnee Warehouse Project and the Inland Empire North Logistics Center – Victorville, located directly across I-15 in the City of Victorville; and the recently approved Apple Valley 143 Warehouse Project, located north of the Project site. The projections are regional projections regarding anticipated changes in population and employment.

The geographic scope of the Draft EIR's analysis varies by topic, depending on the nature of potential impacts and where physical changes would occur. The appropriate projects and cumulative scope of analysis are described in the introduction to Chapter 4 and identified within the discussion of each topic in Chapter 4 and Chapter 5, Effects Found Not to Be Significant. Impacts have been assessed at a level of specificity based on available information for each of the components of the proposed Project, including full buildout and each variant.

3.3 Project Objectives

CEQA Guidelines Section 15124 requires an EIR to include a statement of objectives sought by the Project. The objectives assist the Town in developing a reasonable range of alternatives to be evaluated in the EIR. The Project objectives also aid decision makers in preparing Findings of Fact and a Statement of Overriding Considerations, if necessary. The statement of objectives also is to include the underlying purpose of a project and may discuss a project's benefits.

Purpose and Need

The High Desert/Victor Valley region has long been identified as an area having a low jobs–housing ratio (i.e., an area that has more potential workers living in a community than there are jobs for them),[1] resulting in high numbers of residents commuting out of the region for work. A low jobs-to-housing ratio can result in adverse environmental and economic effects on local communities. Long-distance commutes result in increased traffic and air quality and greenhouse gas emissions, and out-of-region commuters often take a share of their purchasing power with them when they make purchases away from home.

Recognizing these trends, community leaders and officials have long sought to stimulate economic development within the High Desert region and provide residents with local employment opportunities. One strategy that community leaders and planners have used is to attract development of warehousing and distribution centers, which can provide hundreds of jobs per million square feet of development. Conventional and e-commerce retailers are continuing to embrace the strategy of creating and staffing large regional fulfillment centers, with the goal of quickly responding to online consumers. Because of its available land and infrastructure for large logistics facilities, many companies are locating their regional operations to the High Desert area.

As such, the Project would help meet the needs of the growing logistics sector while producing new jobs in a region that is typically viewed as housing rich and jobs poor.

Project Objectives

Consistent with the Project's purpose and need, the primary objectives sought by the Project are as follows:

Objective 1: Develop large-format industrial buildings to stimulate job growth and meet existing demand for large-format industrial buildings in the region.

Objective 2: Develop a fiscally sound, jobs-producing, and tax-generating land use in north Apple Valley.

Objective 3: Implement general plan goals to concentrate nonresidential uses near existing roadways, highways, and freeways in an effort to isolate and reduce any potential environmental impacts related to truck traffic congestion, air emissions, industrial noise, and biological resources to the greatest extent feasible.

[1] A jobs–housing ratio is a commonly used economic metric used to determine whether or not a community or region provides a sufficient number of jobs for its residents. The metric is calculated by finding the relationship between where people work ("jobs") and where they live ("housing"). As of 2020, the Town had a jobs/housing ratio of 1.07, which is below regional targets ranging from 1.25 to 1.50 (SCAG 2021; APA 2003).

Objective 4: Create a project that takes advantage of and enhances existing infrastructure, including the proximity to major regional roadways, railroad service corridors, and other similar infrastructure.

Objective 5: Efficiently develop the land to the highest and best allowable land use compatible with the Town's General Plan and Zoning Code.

3.4 Project Characteristics

3.4.1 Project Components

The Project would include construction of two industrial/warehouse buildings and associated improvements on an approximately 178-acre site. Building 1 would be approximately 1,507,326 square feet while Building 2 would be approximately 1,097,120 square feet. The Project's associated improvements would include loading docks, truck and vehicle parking, and landscaped areas.

Architecture

The Project's design employs a variety of architectural strategies to create a contemporary, unified, and high-quality business park campus environment. Building elevations include vertical and horizontal elements that would break up the overall massing of the buildings (Figures 3-9A through 3-9C, Conceptual Elevations). Building façades would feature a complementary neutral color palette and a variety of building materials, similar to other industrial development located throughout the Town and region (Figure 3-10, Conceptual Renderings).

In an effort to ensure that current and future development within the Town is designed and constructed to conform to existing visual character and quality of the surrounding built environment, the Town of Apple Valley Development Code (Title 9 of the Town's Municipal Code) includes design standards related to building size, height, floor area ratio, and setbacks, as well as landscaping, signage, and other development standards that have an effect on visual considerations. These design standards help adjacent land uses to be visually consistent with one another and their surroundings and reduces the potential for aesthetic conflict. The design specifications of all development proposals submitted to the Town are reviewed for compliance with all applicable provisions set forth by the Development Code. As part of the Town's development review process, the Project's architectural plans are reviewed by Town staff and the Planning Commission to determine whether Project design conforms to the Development Code and promotes the visual character and quality of the surrounding area.

Landscaping and Lighting Improvements

As depicted in Figure 3-11, Conceptual Landscape Plan, landscaping is proposed for the passenger vehicle parking areas, around the portions of the buildings visible from off-site areas, as well as the site's frontages along Outer Highway 15, Norco Road, Apple Valley Road, and Falchion Road. Landscaping along the site's frontages would include a mixture of trees, shrubs, and groundcover. Proposed trees include shoestring acacia (*Acacia stenophylla*), palo blanco (*Acacia willardiana*), Hong Kong orchid tree (*Bauhinia blakeana*), hybrid palo verde (*Cercidium* spp.), western redbud (*Cercis occidentalis*), desert willow (*Chilopsis linearis*), raywood ash (*Fraxinus oxycarpa*), crape myrtle (*Lagerstroemia indica*), fruitless olive (*Olea europaea 'Swan Hill'*), western cottonwood (*Populus fremontii 'Nevada'*), Afghan pine (*Pinus brutia 'Eldarica'*), Chinese flame tree (*Pistacia chinensis*), and chaste tree (*Vitex agnus-castus*). Up to 57 western Joshua trees currently on the Project site would be incorporated or relocated into the Project's landscape plan in accordance with the Project's Joshua Tree Preservation, Protection, and Relocation Plan and Desert Native Plant Relocation Plan, included as Attachment B to the Biological Resources Technical Report (Appendix C). These

plants are not currently shown in the Project's landscape plan but would be incorporated prior to approval of the final landscape plan. Western Joshua trees requiring removal would be mitigated through the issuance of a Western Joshua Tree Conservation Act Incidental Take Permit and the required payment of fees. See Section 4.3 for a full discussion of impacts to western Joshua trees.

The landscaping materials along the Project frontages incorporate a layering concept to provide different height trees and border or accent shrubs and low ground cover. Plant material is selected for low water and low maintenance. Landscaping is designed to be consistent with Section 9.47.050 of the Town's Municipal Code, which contains landscape standards for industrial developments (Town of Apple Valley 2022).

Project lighting would feature a mix of pole-mounted and wall-mounted lighting fixtures. Consistent with Section 9.47.090 of the Town's Municipal Code, lighting shall be used only for the functional requirements of safety, security, and identification and light standards shall blend architecturally with buildings, pedestrian areas, and other hardscape elements (Town of Apple Valley 2022).

Frontage Improvements

The required Project-specific frontage and access improvements are described in detail in Appendix J and summarized below.

- Falchion Road
  - Construct Falchion Road[2] from Outer Highway 15 to Apple Valley Road.
  - Construct and improve the Project's frontage with Falchion Road from Outer Highway 15 to Apple Valley Road.
  - The Project will be required to dedicate land and construct the 52-foot half-width of a major road section including the Project's driveways. Until the southern half of Falchion Road is constructed by others, the two travel lanes constructed within the half-width section can provide for two-way traffic.
- Norco Street
  - Construct Norco Street[3] from Outer Highway 15 to Apple Valley Road.
  - Construct and improve the Project's frontage with Norco Street between Outer Highway 15 and Apple Valley Road.
  - The Project will be required to construct the 52-foot half-width of a secondary road section including the proposed driveways accessing the Project from Norco Street.
- Outer Hwy 15
  - Construct and improve the Project's frontage with Outer Highway 15 between Falchion Road and Norco Street.
  - The Project will be required to dedicate land and construct the 44-foot half-width of a secondary road section including the Project's driveways.
- Apple Valley Road
  - Construct and improve the Project's frontage with Apple Valley Road.

[2] Falchion Road is designated as a Major Road in the General Plan with a 104-foot right-of-way to accommodate a four-lane traveled way with a 12-foot median, shoulder, bike lanes, or street parking, as well as a 12-foot parkway/sidewalk on both side of the street.

[3] Norco Street is designated as a Major Road in the General Plan with a 104-foot right-of-way to accommodate a four-lane traveled way with a 12-foot median, shoulder, bike lanes, or street parking, as well as a 12-foot parkway/sidewalk on both side of the street.

- The Project will be required to dedicate land and construct the 64-foot half-width of Apple Valley Road's major divided arterial designation.
- The Project should construct the section of Apple Valley Road fronting Project-owned property between Falchion Road and Norco Street as a minimum two-way two-lane (one in each direction) roadway to close this gap.

Operational Characteristics

Tenants for the Project have not been identified for either of the industrial warehouse buildings. Notwithstanding, based on the Project Applicant's experience developing, owning, and operating similar warehouse buildings, as well as the Town's experience in permitting similar warehouse buildings, business operations would be expected to be conducted within the enclosed buildings, with the exception of the ingress and egress of trucks and passenger vehicles accessing the site, passenger and truck parking, the loading and unloading of trailers within designated truck courts/loading areas, and the internal and external movement of materials around the Project site via forklifts, pallet jacks, yard hostlers, and similar equipment. Project related trucks would travel on the County and Town's designated truck routes, including Outer Highway 15 to I-15 at Stoddard Wells Road and on Apple Valley Road to I-15 at Quarry Road. It is anticipated that the facilities would be operated 24 hours a day, 7 days a week.

Because an end user has not yet been identified, specific details regarding future operational activities on the Project site are not yet available. However, for the purposes of CEQA and to ensure full disclosure on all potential allowable uses on the Project site, this EIR assumes development of a "blend" of industrial uses. Thus, the modeling assumptions used for the air quality, health risk assessment, greenhouse gas, energy, and traffic impact analyses summarized in subsequent chapters of this EIR assume a blend of all warehouse types with the exception of high-cube fulfillment sort facility, which is the most intensive warehouse type. Cold storage would not be permitted in any of the proposed buildings.

Buildings would have a maximum building height of 50 feet, measured from the finished floor to the top of building parapets. Building 1 would have a floor area ratio (FAR) of 0.36, while Building 2 would have a FAR of 0.33.

The Project would include several improvements to the local circulation system, including improvements to Falchion Road and Outer Highway 15 and the construction of Norco Road and Apple Valley Road. These improvements would occur along the immediate frontage of the Project (Figure 3-4, Overall Site Plan). The ultimate design of these roadway improvements is not yet available and would be determined by the Town's Engineering Department. To account for all possible development scenarios that may occur, the Draft EIR assumes that the proposed roadway improvements could occur within the entirety of the planned rights-of-way as identified on the Town's Circulation Element, with the exception of Apple Valley Road, which is proposed to be re-aligned to the eastern edge of the Project site.

The proposed Project would involve a General Plan Amendment to modify the Town's Circulation Element to re-align Apple Valley Road toward the east. Apple Valley Road is categorized as a Major Divided Arterial roadway with a 128-foot right-of-way. From the Project site's southern boundary at Falchion Road, Apple Valley Road has not yet been constructed but is planned to traverse north through the Project site to Stoddard Wells Road. The proposed General Plan Amendment would shift the proposed alignment slightly to the east, as depicted on Figure 3-12, Proposed General Plan Amendment to Circulation Element. The Project would involve the construction of this roadway along the Project's frontage between Falchion Road and Norco Street. The ultimate construction of Apple Valley Road north of the Project site between Norco Street and Stoddard Wells Road would be constructed at a future time by the Town or future developers and subject to additional environmental review pursuant to CEQA. It is not necessary

for Project implementation and is unrelated to the Project. A tentative parcel map has been submitted to split the parcel into two legal parcels, with one building on each parcel, and to re-align Apple Valley Road eastward.

To account for the maximum potential disturbance associated with all on-site and off-site improvements, a maximum disturbance footprint has been developed, as shown on Figure 3-13, Maximum Disturbance Footprint. Specifically, known improvements are depicted on this figure. Areas in which lateral utility connections may occur or where other roadway and pedestrian improvements may be necessary are also depicted. Together, these off-site improvements are referred to as the Off-Site Street and Utility Improvements.

3.4.2 Project Construction

Based on information provided by the Project Applicant, it is assumed that construction of the Project would begin in September 2024 and would conclude at the end of May 2026,[4] lasting approximately 21 months. On-site facility development and off-site improvements were accounted for within this schedule. The analysis contained herein is based on the following assumptions (duration of phases is approximate):

- Site preparation: September 2024–November 2024
- Grading: November 2024–April 2025
- Building construction: April 2025–December 2025
- Paving: December 2025–March 2026
- Architectural coating: March 2026–May 2026

Construction activities would generally occur across six phases: site preparation (e.g., vegetation clearing, grubbing, tree removal, discing), grading, building construction/utility installation, paving, and architectural coating. With the exception of architectural coating (which would only occur on the Project site), all phases would occur both on the Project site and within the Off-Site Street and Utility Improvements.

For on-site and off-site development, the Project was assumed to have a balanced cut and fill. For the analysis, it was generally assumed that heavy-duty construction equipment would be operating at the site 5 days per week.

3.5 Standard Requirements and Conditions of Approval

The Project has been reviewed in detail by Town staff. Various Town departments and divisions are responsible for reviewing land use applications for compliance with Town codes and regulations. These departments and divisions were also responsible for reviewing this EIR for technical accuracy and compliance with CEQA. The following Town departments and divisions, as well as outside agencies, were responsible for technical review:

- Town of Apple Valley, Planning Division
- Town of Apple Valley, Building and Safety Division
- Town of Apple Valley, Department of Public Works
- Town of Apple Valley, Engineering Department

[4] The analysis assumes a construction start date of September 2024, which represents the earliest date construction would initiate. Assuming the earliest start date for construction represents the worst-case scenario for criteria air pollutant and greenhouse gas emissions, because equipment and vehicle emission factors for later years would be slightly less due to more stringent standards for in-use off-road equipment and heavy-duty trucks, as well as fleet turnover replacing older equipment and vehicles in later years.

- Apple Valley Fire Protection District
- Liberty Utilities
- Southwest Gas Co.
- Mojave Desert Air Quality Management District
- Southern California Edison

This review of the Project by the Town departments and divisions listed above resulted in a comprehensive set of draft Conditions of Approval that will be available for public review prior to consideration of the Project by the Apple Valley Planning Commission. These conditions will be considered by the Planning Commission in conjunction with its consideration of the Project. If approved, the Project will be required to comply with all imposed Conditions of Approval.

Where applicable, Conditions of Approval and other applicable regulations, codes, and requirements to which the Project is required to comply and that result in the reduction or avoidance of an environmental impact are specified in each subsection of Chapter 4 of this EIR. In addition, the Project is required by state law to comply with the California Building Standards Code and its California Green Building Standards (CALGreen) component (Title 24), which includes mandatory building standards aimed at reducing energy use.

3.6 Requested Actions

3.6.1 Town of Apple Valley

The Town has primary approval responsibility for the Project. As such, the Town is serving as the lead agency for this EIR, pursuant to CEQA Guidelines Section 15050.

The following discretionary and ministerial actions under the jurisdiction of either the Town of Apple Valley or a responsible or trustee agency would be required. This EIR covers all federal, state, and local government and quasi-government approvals that may be needed to implement the Project, whether or not they are explicitly listed herein or elsewhere in this EIR (14 CCR 15124[d]).

Discretionary Approvals

Planning Commission will consider and make a recommendation to the Town Council on all requested entitlements. The Town Council will review and approve or deny the requested entitlements.

- **Consider Certification of EIR.** The EIR will be considered and certified or rejected. If certified, appropriate CEQA Findings and the mitigation monitoring and reporting program will be adopted.
- **Development Permit Review.** A review of Development Permit No. DP2022-014 will be held in order to consider the Project, including all requested entitlements.
- **General Plan Amendment.** An amendment to the Circulation Element of the Town's General Plan to re-align Apple Valley Road and change the designation of Norco Road.
- **Tentative Parcel Map.** A tentative map is required to re-align Apple Valley Road eastward and also to divide the single parcel into two roughly equal-sized parcels to accommodate one building on each new lot.
- **Development Agreement**. A Development Agreement between the Town and the Project Applicant pursuant to Section 9.04 of the Apple Valley Municipal Code may be considered. The Development Agreement would provide sufficient time for the development of the Project by locking in development standards and extending

applicable vesting periods for the Project's entitlements and would also establish a mechanism whereby the Project Applicant would be partially reimbursed for costs associated with public improvements constructed that would be used by future developments. Reimbursements would be funded by developers of these future developments. The Development Agreement does not contemplate any additional physical improvements, other than those already identified in the Project description, analysis, and proposed mitigation for the Project. Approval of the Development Agreement is not required for development of the Project.

Ministerial Approvals

Town of Apple Valley Subsequent Implementing Approvals

- Approvals for water and sewer infrastructure
- Remove and relocate on-site protected native desert plants
- Issue grading permits
- Issue building permits
- Issue encroachment permits

3.6.2 Other Agency Approvals

In addition to the approvals required by the Town to implement the Project, the Project would also require permits from other agencies. The following permits are anticipated to be required, but this list may not be exhaustive and may be refined throughout the Project planning process.

- California Department of Transportation. An **Encroachment Permit** from the California Department of Transportation (Caltrans) would be required to accommodate the possible improvements to the I-15/Stoddard Wells Road on-/off-ramps.
- California Department of Fish and Wildlife. An **Incidental Take Permit** from the California Department of Fish and Wildlife (CDFW) would be required to remove western Joshua trees that are present on the Project site. A **Lake and Streambed Alteration Agreement** from CDFW would also be required to modify existing drainages that are present on the Project site.
- Regional Water Quality Control Board. A **Waste Discharge Requirements Permit** from the Regional Water Quality Control Board (RWQCB) would be required to modify existing drainages that are present on the Project site.
- Mojave Desert Air Quality Management District. A **Dust Control Plan** would be required to be approved prior to ground disturbing activities to comply with Rule 403.

3.7 References

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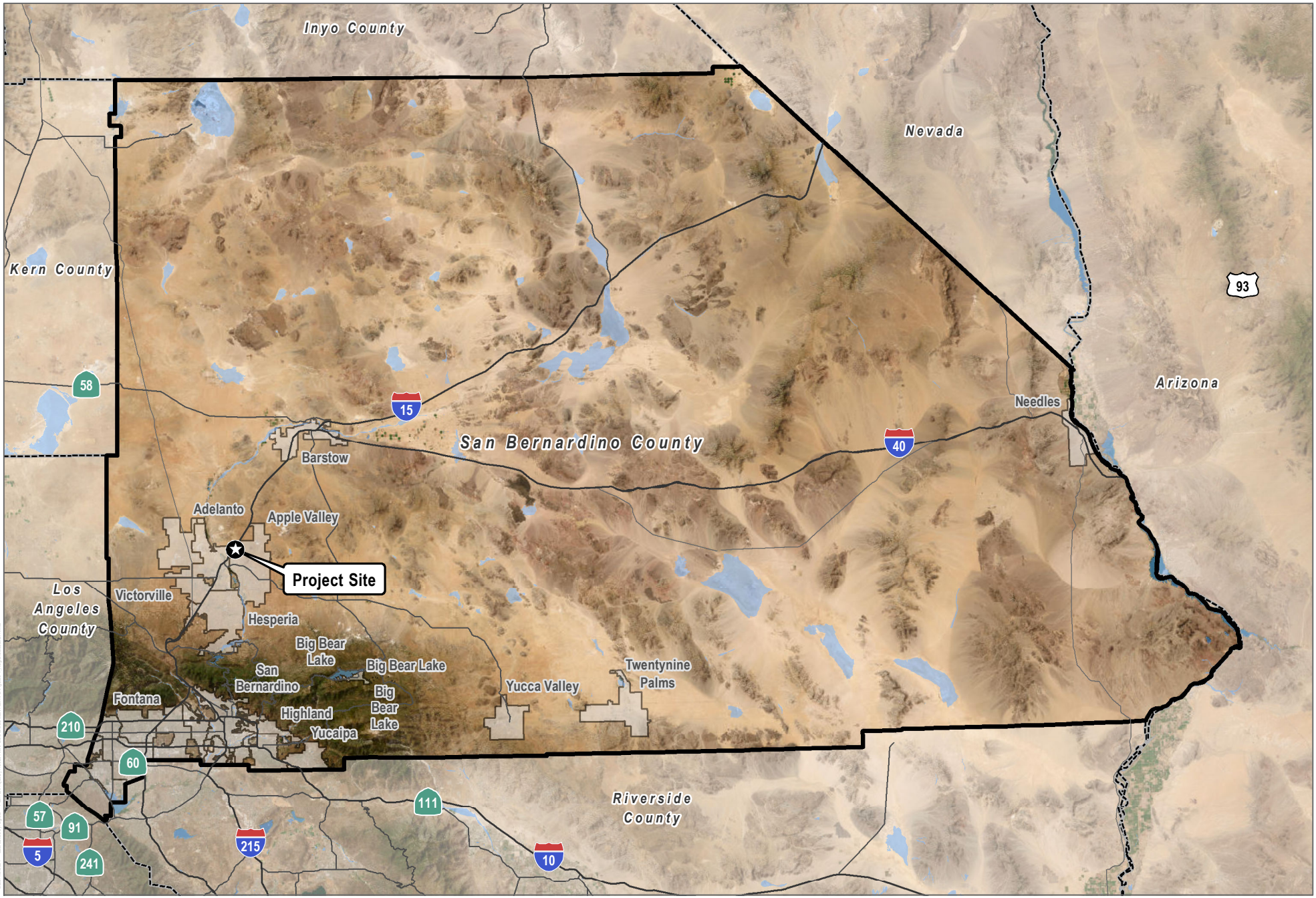

SOURCE: County of San Bernardino; Open Street Map; ESRI World Imagery 2022

DUDEK

0 10 20 Miles

FIGURE 3-1

Regional Location

Inland Empire North Logistics Center Apple Valley Project

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SOURCE: County of San Bernardino; Open Street Map; ESRI World Imagery 2022

DUDEK

0 1 2 Miles

FIGURE 3-2

Vicinity

Inland Empire North Logistics Center Apple Valley Project

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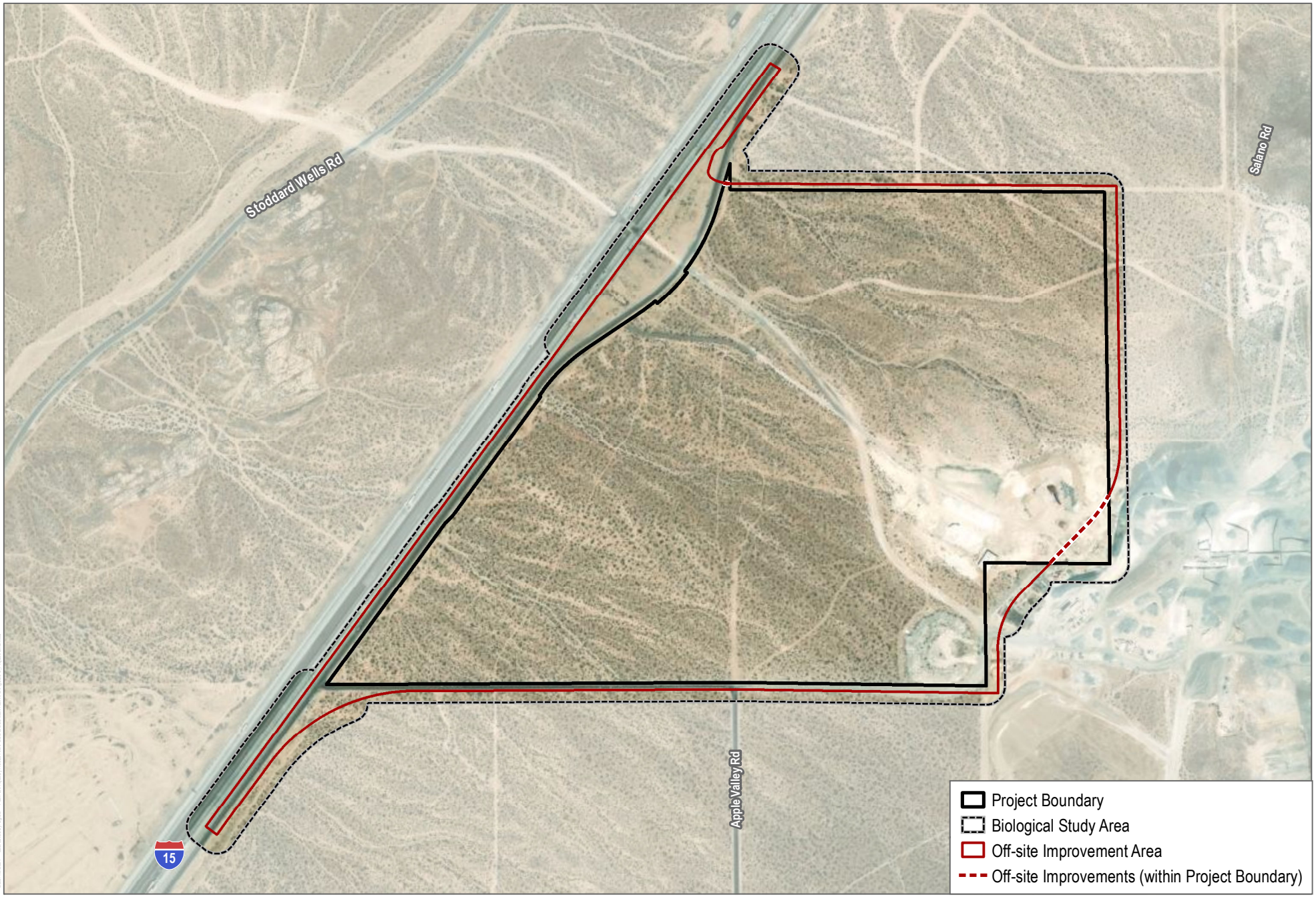

SOURCE: County of San Bernardino; Open Street Map; ESRI World Imagery 2022

DUDEK

0 300 600 Feet

FIGURE 3-3

Project Aerial

Inland Empire North Logistics Center Apple Valley Project

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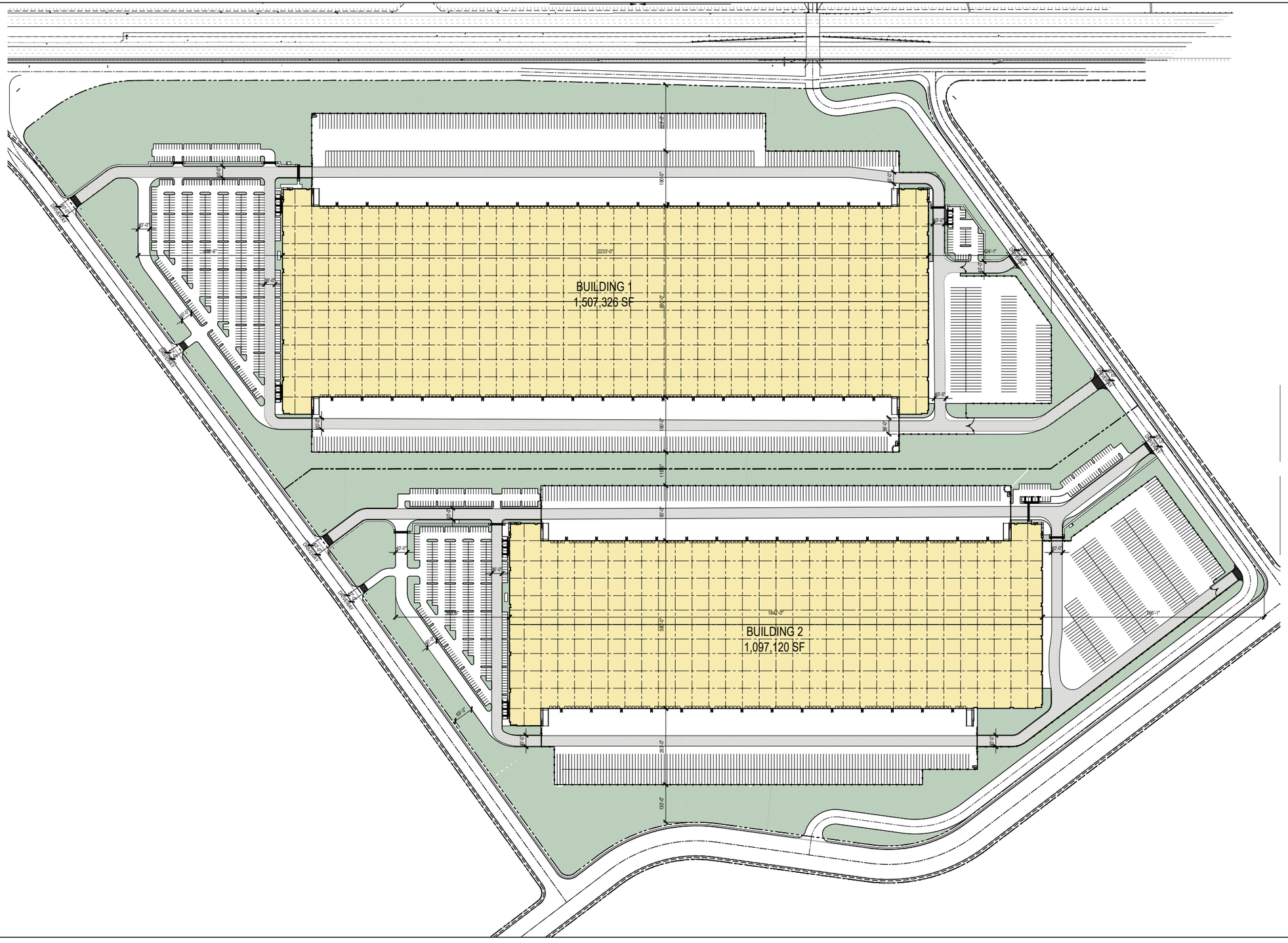

SOURCE: LHA, May 2023

FIGURE 3-4

Site Plan

Inland Empire North Logistics Center Apple Valley Project

DUDEK

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Looking east at Falchion Road

Looking northeast from Falchion Road

SOURCE: Phase I ESA, 2023

FIGURE 3-5A

Existing Project Site Photos

Inland Empire North Logistics Center Apple Valley Project

DUDEK

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Looking south from Frontage Road

Looking east from Frontage Road

SOURCE: Phase I ESA, 2023

FIGURE 3-5B

Existing Project Site Photos

Inland Empire North Logistics Center Apple Valley Project

DUDEK

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Looking southeast from Frontage Road

Looking southwest from Norco Road

SOURCE: Phase I ESA, 2023

FIGURE 3-5C

Existing Project Site Photos

Inland Empire North Logistics Center Apple Valley Project

DUDEK

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Looking south from Norco Road north of Main Street

Looking west from Norco Road

SOURCE: Phase I ESA, 2023

FIGURE 3-5D

Existing Project Site Photos

Inland Empire North Logistics Center Apple Valley Project

DUDEK

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Looking southwest towards Apple Valley Road

Looking east from Apple Valley Road at Quarry

SOURCE: Phase I ESA, 2023

FIGURE 3-5E

Existing Project Site Photos

Inland Empire North Logistics Center Apple Valley Project

DUDEK

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Debris along Apple Valley Road

Looking north from Appley Valley Road

SOURCE: Phase I ESA, 2023

FIGURE 3-5F

Existing Project Site Photos

Inland Empire North Logistics Center Apple Valley Project

DUDEK

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Looking east from Apple Valley Road

Looking west from eastern boundary of Falchion Road

SOURCE: Phase I ESA, 2023

FIGURE 3-5G

Existing Project Site Photos

Inland Empire North Logistics Center Apple Valley Project

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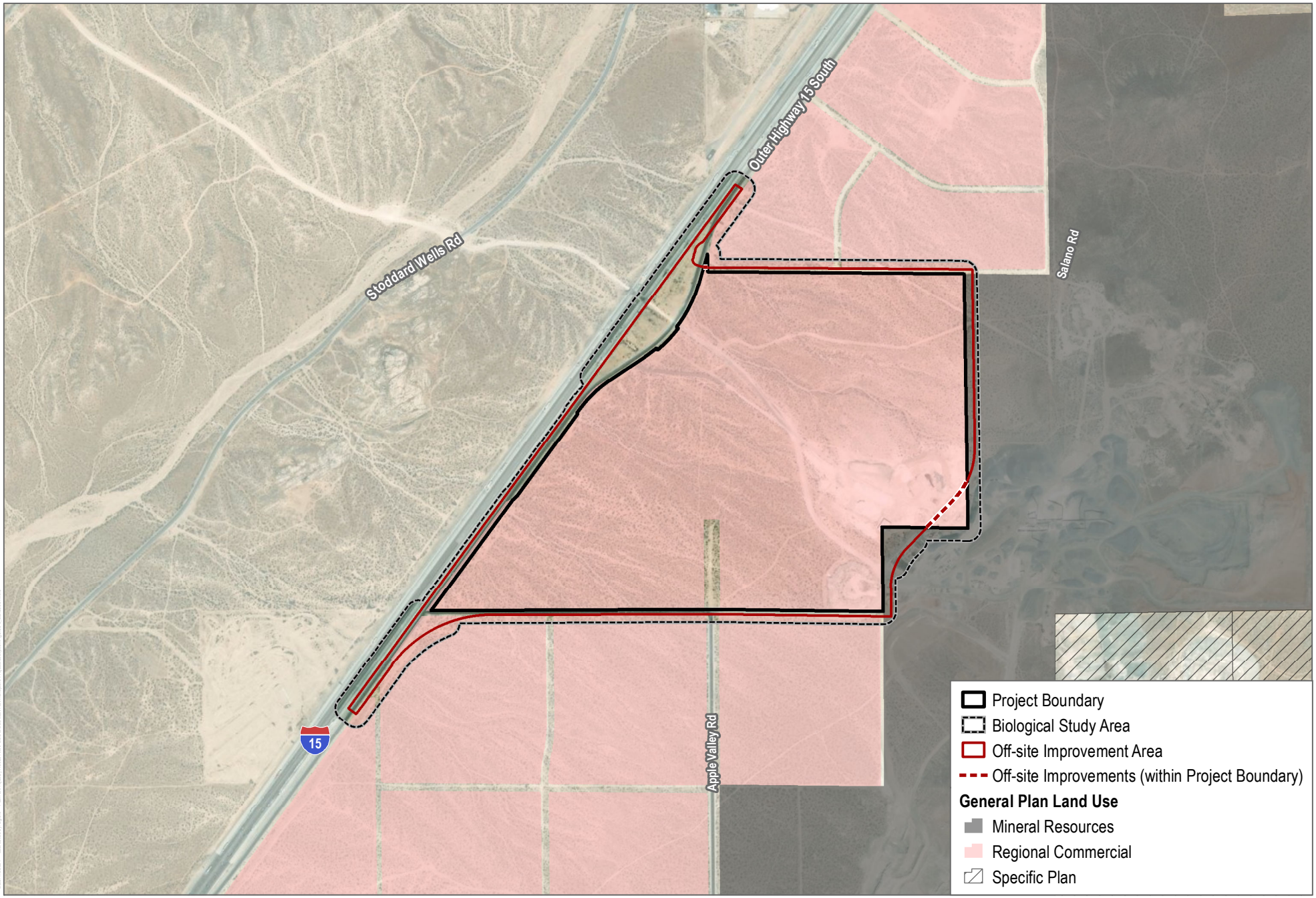

SOURCE: County of San Bernardino; Town of Apple Valley; Open Street Map; ESRI World Imagery 2022

DUDEK

0 500 1,000 Feet

FIGURE 3-6

Land Use Designations

Inland Empire North Logistics Center Apple Valley Project

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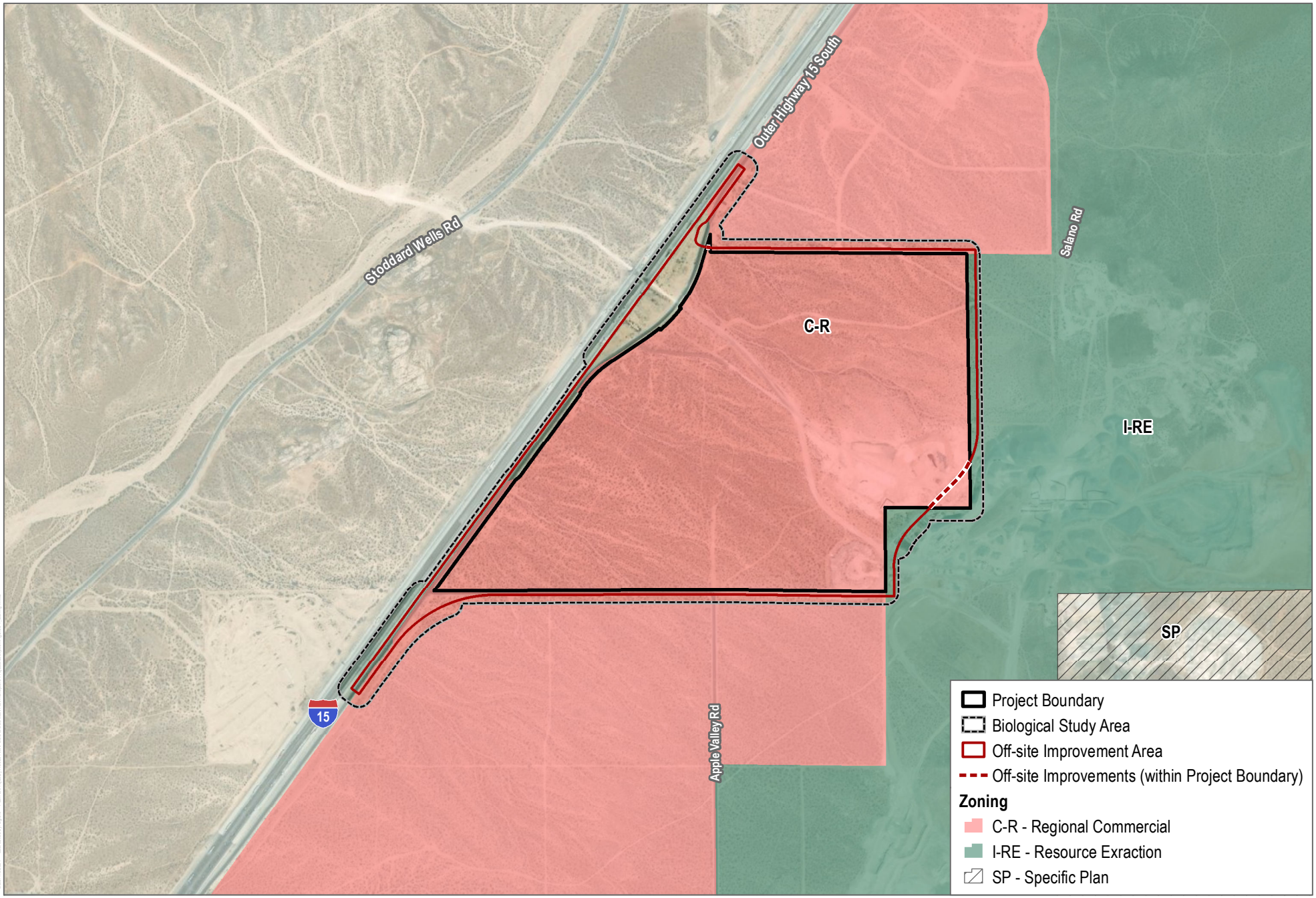

SOURCE: County of San Bernardino; Town of Apple Valley; Open Street Map; ESRI World Imagery 2022

DUDEK

0 500 1,000 Feet

FIGURE 3-7

Zoning Designations

Inland Empire North Logistics Center Apple Valley Project

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SOURCE: County of San Bernardino; Open Street Map; ESRI World Imagery 2022

DUDEK

0 0.5 1 Miles

FIGURE 3-8

Project Development Setting

Inland Empire North Logistics Center Apple Valley Project

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PARTIAL EAST ELEVATION

SOUTH ELEVATION

PARTIAL WEST ELEVATION

NORTH ELEVATION

SOURCE: LHA, May 2023

FIGURE 3-9A

Conceptual Elevations - Design Building 1

Inland Empire North Logistics Center Apple Valley Project

DUDEK

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PARTIAL EAST ELEVATION

SOUTH ELEVATION

PARTIAL WEST ELEVATION

NORTH ELEVATION

SOURCE: LHA, May 2023

FIGURE 3-9B

Conceptual Elevations - Design Building 2

Inland Empire North Logistics Center Apple Valley Project

DUDEK

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1 PAINTED CONCRETE SHERWIN-WILLIAMS SW 7005 PURE WHITE

2 PAINTED CONCRETE SHERWIN-WILLIAMS SW 6253 OLYMPUS WHITE

3 PAINTED CONCRETE SHERWIN-WILLIAMS SW 7071 GRAY SCREEN

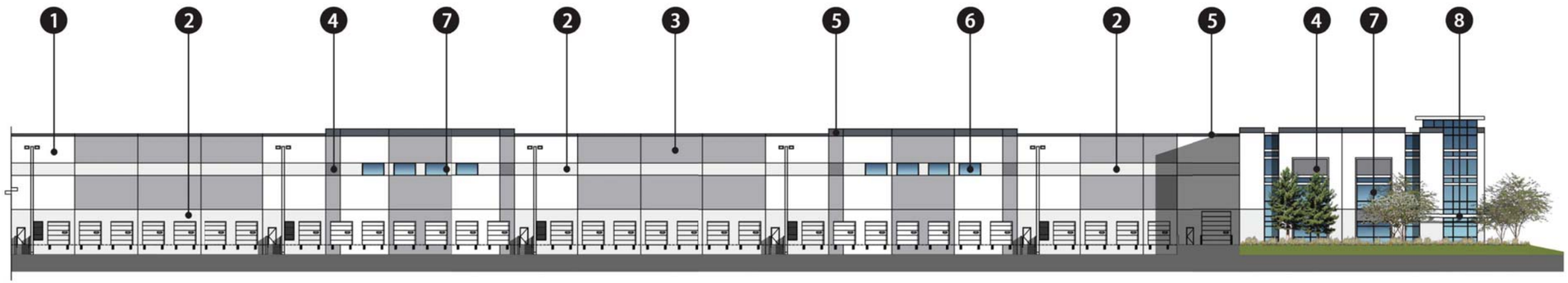
4 PAINTED CONCRETE SHERWIN-WILLIAMS SW 7067 CITYSCAPE

5 PAINTED CONCRETE SHERWIN-WILLIAMS SW 7005 CYBERSPACE

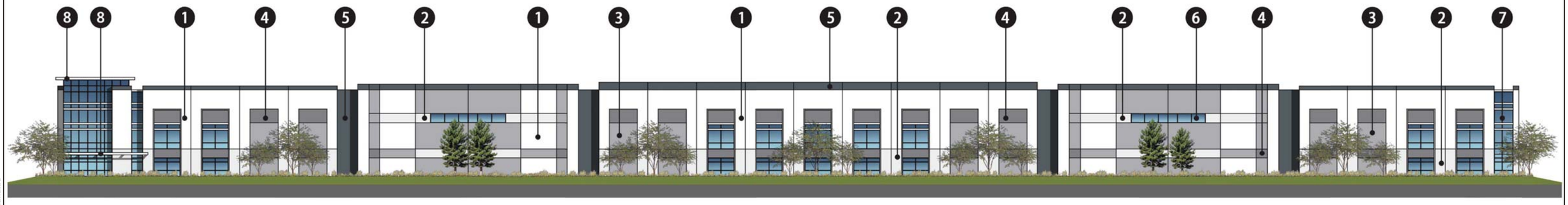
6 BLUE REFLECTIVE GLAZING

7 CLEAR ANODIZED MULLIONS

8 CANOPY: REYNOBOND ACM DURAGLOSS 5000 PROGRAM WHITE



PARTIAL EAST ELEVATION



SOUTH ELEVATION

SOURCE: LHA, May 2023

FIGURE 3-9C

Conceptual Elevations - Colored Elevation Design

Inland Empire North Logistics Center Apple Valley Project

DUDEK

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SOURCE: LHA, May 2023

FIGURE 3-10

Conceptual Renderings

Inland Empire North Logistics Center Apple Valley Project

DUDEK

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TREES


Acacia stenophylla
Shoestring Acacia


Acacia willardiana
Palo Blanco

Bauhinia blakeana
Hong Kong Orchid Tree

Cercidium spp.
Hybrid Palo Verde


Cercis occidentalis
Western Redbud


Chilopsis linearis
Desert Willow

Fraxinus oxycarpa
Raywood Ash

Lagerstroemia indica
Crape Myrtle


Olea europaea 'Swan Hill'
Fruitless Olive


Populus fremontii 'Nevada'
Western Cottonwood

Pinus brutia 'Edlarica'
Afghan Pine

Pistacia chinensis
Chinese Flame Tree

Vitex agnus-castus
Chaste Tree

ORNAMENTAL GRASSES & DESERT ACCENTS


Muhlenbergia capillaris
Pink Muhly Grass


Muhlenbergia lindeimeri
Autumn Glow Muhly

Agave americana 'Mediopicta'
Variegated Dwarf Century Plant


Agave 'Blue Glow'
Blue Glow Agave


Bulbine frutescens
Yellow Bulbine


Fouquieria splendens
Ocotillo


Hesperaloe parviflora
Red Yucca


Achnatherum hymenoides
Baileya multriadiata
Elymus multisetus
Eschscholzia californica
Ericameria nauseousa
Monolopia lanceolata
Phacelia campanularia
Plantago erecta
Poa secunda
Vulpia microstachys
Non-Irrigatied Hydroseed Mix
Species Mix at Right

FLOWERING SHRUBS & GROUND COVERS

Bougainvilla spp.
Bougainvillea

Caesalpinia pulcherrima
Red Bird of Paradise

Calliandra eriophylla
Pink Fairy Duster


Cistus x purpureus
Orchid Rock Rose


Convolvulus mauritanicus
Ground Morning Glory


Dalea frutescens
Black Dalea


Lantana x New Gold
New Gold Lantana


Leucophyllum frutescens
Texas Ranger


Nepeta x faassenii
Catmint


Rosmarinus officinalis
Prostrate Rosemary


Ruellia peninsularis
Ruellia


Tecoma stans
Yellow Bells Tecoma

INERT MATERIALS


Decomposed Granite
Multiple Colors


Decorative Boulders
Multiple Sizes


Crushed Rock
Mutiple Colors and/or Gradations

SOURCE: David Evans and Associates Inc., August 2022

FIGURE 3-11A

Conceptual Landscape Plan

Inland Empire North Logistics Center Apple Valley Project

DUDEK

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TREES

Acacia stenophylla
Shoestring Acacia

Acacia willardiana
Palo Blanco

Bauhinia blakeana
Hong Kong Orchid Tree

Cercidium spp.
Hybrid Palo Verde

Cercis occidentalis
Western Redbud

Chilopsis linearis
Desert Willow

Fraxinus oxycarpa
Raywood Ash

Lagerstroemia indica
Crape Myrtle

Olea europaea 'Swan Hill'
Fruitless Olive

Populus fremontii 'Nevada'
Western Cottonwood

Pinus brutia 'Edlarica'
Afghan Pine

Pistacia chinensis
Chinese Flame Tree

Vitex agnus-castus
Chaste Tree

ORNAMENTAL GRASSES & DESERT ACCENTS

Muhlenbergia capillaris
Pink Muhly Grass

Muhlenbergia lindeimeri
Autumn Glow Muhly

Agave americana 'Mediopicta'
Variegated Dwarf Century Plant

Agave 'Blue Glow'
Blue Glow Agave

Bulbine frutescens
Yellow Bulbine

Fouquieria splendens
Ocotillo

Hesperaloe parviflora
Red Yucca

Non-Irrigatied Hydroseed Mix
Species Mix at Right

Achnatherum hymenoides
Baileya multriadiata
Elymus multisetus
Eschscholzia californica
Ericameria nauseousa
Monolopia lanceolata
Phacelia campanularia
Plantago erecta
Poa secunda
Vulpia microstachys

FLOWERING SHRUBS & GROUND COVERS

Bougainvilla spp.
Bougainvillea

Caesalpinia pulcherrima
Red Bird of Paradise

Calliandra eriophylla
Pink Fairy Duster

Cistus x purpureus
Orchid Rock Rose

Convolvulus mauritanicus
Ground Morning Glory

Dalea frutescens
Black Dalea

Lantana x New Gold
New Gold Lantana

Leucophyllum frutescens
Texas Ranger

Nepeta x faassenii
Catmint

Rosmarinus officinalis
Prostrate Rosemary

Ruellia peninsularis
Ruellia

Tecoma stans
Yellow Bells Tecoma

INERT MATERIALS

Decomposed Granite
Multiple Colors

Decorative Boulders
Multiple Sizes

Crushed Rock
Mutiple Colors and/or Gradations

0 80 160 Feet

SOURCE: David Evans and Associates Inc., August 2022

FIGURE 3-11B

Conceptual Landscape Plan

Inland Empire North Logistics Center Apple Valley Project

DUDEK

INTENTIONALLY LEFT BLANK

TREES

Acacia stenophylla
Shoestring Acacia

Acacia willardiana
Palo Blanco

Bauhinia blakeana
Hong Kong Orchid Tree


Cercidium spp.
Hybrid Palo Verde


Cercis occidentalis
Western Redbud

Chilopsis linearis
Desert Willow

Fraxinus oxycarpa
Raywood Ash

Lagerstroemia indica
Crape Myrtle


Olea europaea 'Swan Hill'
Fruitless Olive


Populus fremontii 'Nevada'
Western Cottonwood

Pinus brutia 'Edlarica'
Afghan Pine

Pistacia chinensis
Chinese Flame Tree

Vitex agnus-castus
Chaste Tree

ORNAMENTAL GRASSES & DESERT ACCENTS

Muhlenbergia capillaris
Pink Muhly Grass

Muhlenbergia lindeimeri
Autumn Glow Muhly

Agave americana 'Mediopicta'
Variegated Dwarf Century Plant


Agave 'Blue Glow'
Blue Glow Agave


Bulbine frutescens
Yellow Bulbine


Fouquieria splendens
Ocotillo


Hesperaloe parviflora
Red Yucca


Non-Irrigatied Hydroseed Mix
Species Mix at Right

Achnatherum hymenoides
Baileya multiradiata
Elymus multisetus
Eschscholzia californica
Ericameria nauseousa
Monolopia lanceolata
Phacelia campanularia
Plantago erecta
Poa secunda
Vulpia microstachys

FLOWERING SHRUBS & GROUND COVERS

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Bougainvillea

Caesalpinia pulcherrima
Red Bird of Paradise


Calliandra eriophylla
Pink Fairy Duster


Cistus x purpureus
Orchid Rock Rose


Convolvulus mauritanicus
Ground Morning Glory


Dalea frutescens
Black Dalea


Lantana x New Gold
New Gold Lantana


Leucophyllum frutescens
Texas Ranger


Nepeta x faassenii
Catmint


Rosmarinus officinalis
Prostrate Rosemary

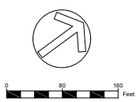

Ruellia peninsularis
Ruellia

INERT MATERIALS


Decomposed Granite
Multiple Colors


Decorative Boulders
Multiple Sizes


Crushed Rock
Mutiple Colors and/or Gradations



SOURCE: David Evans and Associates Inc., August 2022

FIGURE 3-11C

Conceptual Landscape Plan

Inland Empire North Logistics Center Apple Valley Project

DUDEK

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TREES

Acacia stenophylla
Shoestring Acacia

Acacia willardiana
Palo Blanco

Bauhinia blakeana
Hong Kong Orchid Tree

Cercidium spp.
Hybrid Palo Verde

Cercis occidentalis
Western Redbud

Chilopsis linearis
Desert Willow

Fraxinus oxycarpa
Raywood Ash

Lagerstroemia indica
Crape Myrtle

Olea europaea 'Swan Hill'
Fruitless Olive

Populus fremontii 'Nevada'
Western Cottonwood

Pinus brutia 'Edlarica'
Afghan Pine

Pistacia chinensis
Chinese Flame Tree

Vitex agnus-castus
Chaste Tree

ORNAMENTAL GRASSES & DESERT ACCENTS

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Pink Muhly Grass

Muhlenbergia lindeimeri
Autumn Glow Muhly

Agave americana 'Mediopicta'
Variegated Dwarf Century Plant

Agave 'Blue Glow'
Blue Glow Agave

Bulbine frutescens
Yellow Bulbine

Fouquieria splendens
Ocotillo

Hesperaloe parviflora
Red Yucca

Non-Irrigatied Hydroseed Mix
Species Mix at Right

Achnatherum hymenoides
Baileya multriadiata
Elymus multisetus
Eschscholzia californica
Ericameria nauseousa
Monolopia lanceolata
Phacelia campanularia
Plantago erecta
Poa secunda
Vulpia microstachys

FLOWERING SHRUBS & GROUND COVERS

Bougainvilla spp.
Bougainvillea

Caesalpinia pulcherrima
Red Bird of Paradise

Calliandra eriophylla
Pink Fairy Duster

Cistus x purpureus
Orchid Rock Rose

Convolvulus mauritanicus
Ground Morning Glory

Dalea frutescens
Black Dalea

Lantana x New Gold
New Gold Lantana

Leucophyllum frutescens
Texas Ranger

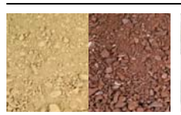
Nepeta x faassenii
Catmint

Rosmarinus officinalis
Prostrate Rosemary

Ruellia peninsularis
Ruellia

Tecoma stans
Yellow Bells Tecoma

INERT MATERIALS



Decomposed Granite
Multiple Colors

Decorative Boulders
Multiple Sizes

Crushed Rock
Mutiple Colors and/or Gradations

SOURCE: David Evans and Associates Inc., August 2022

FIGURE 3-11D

Conceptual Landscape Plan

Inland Empire North Logistics Center Apple Valley Project

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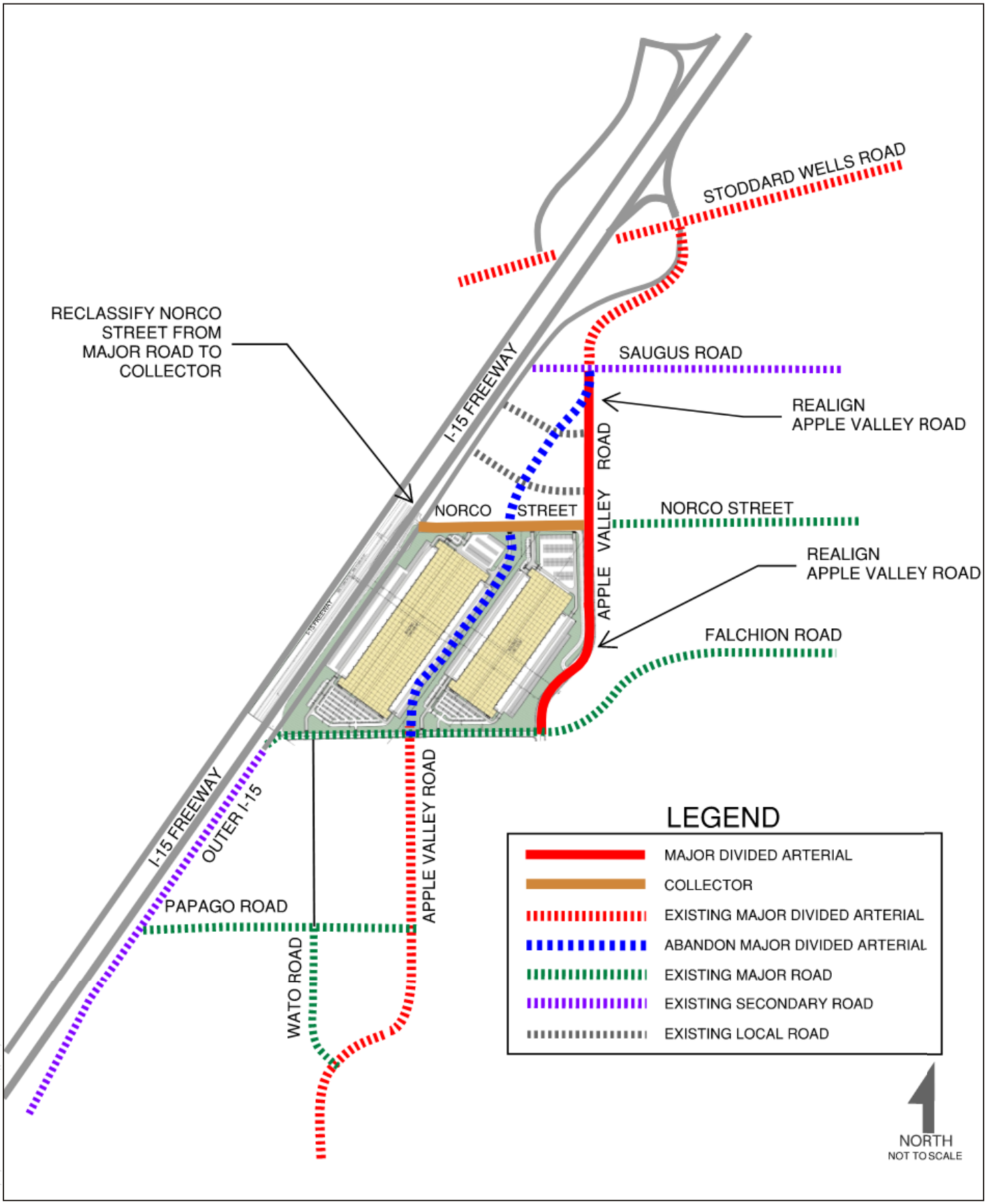

SOURCE: David Evans and Associates Inc., 2024

FIGURE 3-12

Proposed General Plan Amendment to Circulation Element

Inland Empire North Logistics Center Apple Valley Project

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4 Environmental Analysis

4.0 Introduction to Environmental Analysis

The purpose of this environmental impact report (EIR) is to evaluate the potential environmental effects of the Inland Empire North Logistics Center Project (Project). The Town of Apple Valley (Town) circulated a Notice of Preparation (NOP) beginning on September 18, 2023, with the public review period ending on October 17, 2023. The NOP was transmitted to the State Clearinghouse, responsible agencies, other affected agencies, and other public and private potential stakeholders to solicit feedback regarding the scope of the environmental analysis to be addressed in the Project's EIR. The NOP, Initial Study, and comment letters received are contained in Appendix A of this EIR.

Sections 4.1 through 4.14 of this EIR contain the potential environmental impacts analysis associated with implementation of the Project, and focus on the following issues:

- Section 4.1 – Aesthetics
- Section 4.2 – Air Quality
- Section 4.3 – Biological Resources
- Section 4.4 – Cultural, Tribal Cultural, and Paleontological Resources
- Section 4.5 – Energy
- Section 4.6 – Greenhouse Gas Emissions
- Section 4.7 – Hazards and Hazardous Materials
- Section 4.8 – Hydrology and Water Quality
- Section 4.9 – Land Use and Planning
- Section 4.10 – Mineral Resources
- Section 4.11 – Noise
- Section 4.12 – Public Services
- Section 4.13 – Transportation
- Section 4.14 – Utilities and Service Systems

Technical Studies

Technical studies were prepared to analyze air quality and greenhouse gas emissions, health risks, biological resources, cultural resources, geologic site conditions, hazards and hazardous materials, hydrology and water quality, noise, transportation, and water supply impacts, and were used in the preparation of this EIR. These documents are identified in the discussions for the individual environmental issues and are included as technical appendices on a flash drive attached to the EIR and available at the Town.

Analysis Format

The EIR assesses how the Project would impact each of the above-listed resource areas. Each environmental issue addressed in this EIR is presented in terms of the following subsections:

- **Existing Conditions:** Provides information describing the existing setting on and/or surrounding the Project site that may be subject to change as a result of implementation of the Project. This setting discussion describes the conditions that existed when the NOP was sent to responsible agencies and the State Clearinghouse.
- **Relevant Regulations, Plans, Policies, and Ordinances:** Provides a discussion of federal, state, regional, and local regulations, plans, policies, and ordinances applicable to the Project.
- **Thresholds of Significance:** Provides criteria for determining the significance of Project impacts for each environmental issue.
- **Impact Analysis:** Provides a discussion of the characteristics of the Project that may have an impact on the environment, analyzes the nature and extent to which the Project is expected to change the existing environment, and indicates whether the Project's impacts would meet or exceed the levels of significance thresholds.
- **Mitigation Measures and Level of Significance After Mitigation:** Identifies mitigation measures to reduce significant adverse impacts to the extent feasible and provides a discussion of significant adverse environmental impacts that cannot be feasibly mitigated or avoided, significant adverse environmental impacts that can be feasibly mitigated or avoided, adverse environmental impacts that are not significant, and beneficial impacts.
- **References Cited:** Lists the sources cited during preparation of the EIR.

4.1 Aesthetics

This section describes the existing visual conditions of the Inland Empire North Logistics Center Apple Valley Project (Project) site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the Project.

4.1.1 Existing Conditions

Regional Setting

The approximately 178-acre Project site is located in the northern part of the Town, which is within the Victor Valley Region of San Bernardino County. The Project site is located in the northwestern part of the Town of Apple Valley (Town) in the Victor Valley/High Desert region of San Bernardino County (County). The region contains open space with a variety of topographical features and vegetation communities, including the Mojave River to the west, San Bernardino Mountains, and San Gabriel to the south, rolling foothills, and the surrounding desert landscape within the Victor Valley. Surrounding mountains and ridgelines are the most prominent features of the landscape. Other features that shape the visual environment and provide both physical and visual relief include the natural desert terrain that spreads across the flat valley floor, natural vegetation, natural drainage patterns and watercourses (i.e., Bell Mountain Wash and Desert Knolls Wash) and surrounding open space, habitat areas, and recreation areas.

The Town of Apple Valley is located primarily on alluvial slopes of the Mojave River floodplain, at the southern edge of the Mojave Desert. Elevations in the Town range from approximately 2,800 feet above sea level near the Mojave River, to approximately 3,200 feet above sea level at the northeast corner of Town. The topography gradually inclines towards the Juniper Flats foothills of the San Bernardino Mountains to the south, as well as to the scattered knolls and mountains to the north and east of the Town. Turtle and Black Mountains are located to the north of the planning area, Fairview Mountain to the northeast and the Granite Mountains to the southeast. From these elevated topographical features, panoramic vistas exist across Apple Valley. Viewsheds in the area also comprise of the Mojave River that include areas of riparian forest and the bluffs and terraces of the floodplain. The low-lying terrain surrounding the Town allows unobstructed views in all direction, creating a sense of openness and spaciousness that is enhanced by the muted colors of the desert landscape (Town of Apple Valley 2009).

Project Setting

The Project site is located in Section 26, Township 6N, Range 4W, as depicted on the U.S. Geological Survey Apple Valley North and Victorville, California 7.5-minute topographic quadrangle maps. The Project site is located south of Norco Road and the terminus of Apple Valley Road, north of Falchion Road, east of I-15 and Outer Highway 15 S Road. Highway I-15 and State Highway 18 are the major highways of the Town. I-15 is located immediately adjacent to the Project site's western boundary and State Highway 18 is located near the center of the Town and runs generally southeast to northwest through the Town. Apple Valley has developed most densely along major roadways in Town, including State Highway 18 and Bear Valley Road. Although the majority of the I-15 corridor area is undeveloped, transportation-related and trucking-related land uses (e.g., truck yards, convenience stations, and warehouses) associated with this highway are located intermittently along highway frontages and are interspersed by parcels of undeveloped land.

More specifically, the irregularly shaped Project site consists of predominantly vacant and undeveloped land, as well as approximately 20 acres of disturbed land located at the northeast portion of the Project site, which is currently used for stockpiling activities; a metal storage building related to the stockpiling activities is currently on site but would be removed prior to construction of the Project. Various dirt roads and trails that appear well-traveled by motorized off-road vehicles form bands of exposed, bare soils that traverse the site. The Project site is relatively flat with a series of small rolling hills characterized by desert landscape consisting of exposed soils, moderate vegetation cover composed of brush, shrub, and grass cover as well as scattered large Joshua and Juniper trees. The site is bound by Norco Street and vacant land to the north, CalPortland Cement Plant to the east, Falchion Road and Apple Valley Road to the south, and I-5 and Outer Highway 15 S Road to the west. Surrounding land uses and elements that form the visual environment in the Project area are described as follows:

- **North:** Norco Street and vacant land. Norco Street is a roadway surrounded by vacant land on either side. The vacant land is covered by flat desert terrain similar in vegetation to the Project site.
- **East**: CalPortland Cement Plant. Large industrial facility located on the eastern boundary of the Project site.
- **South:** Falchion Road and Apple Valley Road. Both Falchion Road and Apple Valley Road are two lane roadways surrounded by vacant land on either side.
- **West:** I-15 and Outer Highway 15 S Road, I-5 is a north-south, six lane divided highway immediately adjacent to Outer Highway 15 S Road that borders the Project's western boundary. Highway 15 is a major north-south freeway that passes through the western side of the town of Apple Valley.

Scenic Vistas

Scenic vistas are typically broad views of scenic resources such as landforms and waterways that are visible from publicly accessible viewpoints.

The Town of Apple Valley's General Plan EIR identifies scenic vistas as natural visual resources that provide the planning area with special character that include uninterrupted expanses of 'wide skies' and panoramic vistas of distant mountains. Natural visual resources identified within the Town's General Plan EIR include characteristic views of the Mojave River floodplain bluffs and terraces, areas of riparian forest flora, the Turtle Mountains, the Fairview Mountains, the Sidewinder Mountains, the Black Mountains, the San Bernardino and San Gabriel Mountain ranges, along with neighboring hillsides and the natural desert environment (Town of Apple Valley 2009).

the Mojave River is located approximately 5 miles to the west of the Project site; the Turtle Mountains are located approximately 6 miles to the northeast, the Fairview Mountains are located approximately 7.5 miles to the east, the Sidewinder Mountains are located approximately 10 miles to the northeast, the Black Mountains are located approximately 8 miles to the northeast, and the foothills and elevated terrain within the San Gabriel and San Bernardino Mountains are located between approximately 25 miles to the southwest and approximately 38 miles to the southeast, respectively. The Project site is privately owned and does not provide any publicly accessible viewpoints. Views of the Project site taken from other nearby scenic vistas are currently characterized by the large aggregate mining facility located adjacent to the east of the Project Site, the stockpile of aggregate material and a metal storage structure on the Project Site, and undeveloped land with natural vegetation. Although scattered development such as commercial uses (i.e., Walmart Distribution Center, Big Lots Distribution Center, Solar Energy Company, and interstate highways) exists in the area, scenic resources identified by the Town's General Plan are visible in the vicinity of the Project site.

Several washes and natural water courses traverse the Town and are identified in the Town's General Plan. These include the Bell Mountain Wash and the Desert Knolls Wash. The nearest wash area to the Project site is the Bell Mountain Wash, which flows at an angle in a general southeast to southwest direction, approximately 7,938 feet west of the Project site beyond Stoddard Wells Road. Given that this watercourse is below the grade of the general topography and consists of intervening roadways and vegetation, views of these water courses are not available in the vicinity of the Project site.

Scenic Routes

There are no officially designated scenic roads or highways within the Town. According to the California Department of Transportation (Caltrans), there is one officially designated state scenic highway in the County and 11 eligible scenic highways (Caltrans 2019). Route 38, the County's only designated scenic highway, is located approximately 28 miles southeast of the Project site in the San Bernardino National Forest. There are no eligible scenic highways located within Town limits. State Route 247 is the eligible scenic highway that is closest to the Project site, located approximately 20 miles east of the Project site, near the Sidewinder Mountains. None of the County's officially designated or eligible scenic highways are visible from the Project site, nor is the Project site visible from the highways.

Light and Glare

The Project site does not currently support any existing sources of light or glare. Existing sources of light and glare in the Project area include vehicular headlights and streetlights along I-15.

Viewshed and Visibility

Due to the relatively flat nature of the Project site and surrounding area, the site is visible from surrounding roads and land uses, including vacant land and scattered residential uses. Views of the Project site from surrounding public vantage points consist of undeveloped land within a flat valley characterized as a desert landscape with disturbed soils. Views include stockpiling activities, a metal storage building, dirt roads and trails cross the Project site, scattered Joshua trees, and moderate vegetation cover consisting of grasses and shrubs.

Viewer Groups

Motorists

I-15

Motorists traveling on I-15 are provided views of the northern and western portions of the Project site. Views toward the Project site from I-15 consists of a variety of natural desert vegetation, including scattered Joshua trees and Juniper, and distant ridgelines and mountains that create a backdrop to the flat desert terrain.

Apple Valley Road

Motorists traveling on Apple Valley Road are provided views of the southern portion of the Project site. Views consist of a variety of natural desert vegetation, including scattered Joshua trees and Juniper, and distant ridgelines and mountains that create a backdrop to the flat desert terrain.

Norco Street

Motorists traveling on Norco Street are provided views of the northern and eastern portion of the Project site. Views consist of a variety of natural desert vegetation and distant ridgelines and mountains.

Falchion Road

Motorists traveling on Falchion Road are provided views of the southern portion of the Project site. Views consist of a variety of natural desert vegetation, including scattered Joshua trees, and distant ridgelines and mountains that create a backdrop to the flat desert terrain.

4.1.2 Relevant Regulations, Plans, Policies, and Ordinances

State

California Scenic Highway Program

California's Scenic Highway Program was created by the state legislature in 1963. This program's purpose is to "preserve and protect scenic highway corridors from change that would diminish the aesthetic value of lands adjacent to highways" (Caltrans 2024). The state laws governing the Scenic Highway Program are found in the Streets and Highways Code, Section 260 et seq. The California Scenic Highway System includes a list of highways that are officially designated as scenic highways or eligible for designation as scenic highways. As discussed in Section 4.1.1, Existing Conditions, there are no state-designated or eligible state scenic highways within the viewshed of the Project site.

California Code of Regulations

Title 24 – California Building Standards Code

Title 24, California Building Standards Code, consists of regulations to control building standards throughout the state. The following components of Title 24 include standards related to lighting:

Title 24, Part 1 – California Building Code / Title 24, Part 3 – California Electrical Code

The California Building Code (Title 24, Part 1) and the California Electrical Code (Title 24, Part 3) stipulate minimum light intensities for pedestrian pathways, circulation ways, parking lots, and paths of egress.

Title 24, Part 6 – California Energy Code

The California Energy Code (CEC) (Title 24, Part 6) stipulates allowances for lighting power and provides lighting control requirements for various lighting systems, with the aim of reducing energy consumption through efficient and effective use of lighting equipment. Section 130.2 sets forth requirements for Outdoor Lighting Controls and Luminaire Cutoff requirements. All outdoor luminaires rated above 150 watts shall comply with the backlight, up light, and glare (BUG) ratings in accordance with IES TM-15-11, Addendum A, and shall be provided with a minimum of 40% dimming capability activated to full on by motion sensor or other automatic control. This requirement does not apply to streetlights for the public right of way, signs, or building facade lighting.

Section 140.7 establishes outdoor lighting power density allowances in terms of watts per area for lighting sources other than signage. The lighting allowances are provided by the Lighting Zone, as defined in Section 10-114 of the CEC. Under Section 10-114, all urban areas within California are designated as Lighting Zone 3. Additional allowances are provided for Building Entrances or Exits, Outdoor Sales Frontage, Hardscape Ornamental Lighting, Building Facade Lighting, Canopies, Outdoor Dining, and Special Security Lighting for Retail Parking and Pedestrian Hardscape.

Section 130.3 stipulates sign lighting controls with any outdoor sign that is on during both day and nighttime hours must include a minimum 65% dimming at night. Section 140.8 of the CEC sets forth lighting power density restrictions for signs.

Title 24, Part 11 – California Green Building Standards Code

The California Green Building Standards Code (CALGreen) (Title 24, Part 24) is commonly referred to as the CALGreen Code. The CALGreen Code stipulates maximum allowable light levels, efficiency requirements for lighting, miscellaneous control requirements, and light trespass requirements for electric lighting and daylighting. Paragraph 5.1106.8 Light Pollution Reduction, specifies that all non-residential outdoor lighting must comply with the following:

- The minimum requirements in the CEC for Lighting Zones 1-4 as defined in Chapter 10 of the California Administrative Code; and
- BUG ratings as defined in the Illuminating Engineering Society of North America's Technical Memorandum on Luminaire Classification Systems for Outdoor Luminaires (IESNA TM-15-07); and
- Allowable BUG ratings not exceeding those shown in Table A5.106.8 in Section 5.106.8 of the CALGreen Code; or
- Comply with a local ordinance lawfully enacted pursuant to Section 101.7, whichever is more stringent.

IESNA Recommended Practices

Illuminating Engineering Society of North American (IESNA) recommends illumination standards for a wide range of building and development types. These recommendations are widely recognized and accepted as best practices and are a consistent predictor of the type and direction of illumination for any given building type. For all areas not stipulated by the regulatory building code, municipal code or specifically defined requirements, the IESNA standards are used as the basis for establishing the amount and direction of light for the Project. The IESNA provides recommendations for pre-curfew and post-curfew light levels to limit light trespass. Pre-curfew is from dusk until 11:00 p.m. local time, when the area being illuminated is more likely to be in use. Post-curfew is from 11:00 p.m. to 7:00 a.m. local time (NLPIP 2004).

The IESNA 10th Edition Lighting Handbook defines lighting zones (LZ) relative to ambient light levels, which are used to establish a basis for outdoor lighting regulations. The existing conditions surrounding the Project site are best described as LZ 3, which has a maximum recommended light trespass limit of 8 lux (0.74 foot-candles) during pre-curfew hours and 3 lux (0.28 foot-candles) during post-curfew hours.

California Vehicle Code

Chapter 2, Article 3 of the California Vehicle Code stipulates limits to the location of light sources that may cause glare and impair the vision of drivers.

Article 3. Offenses Relating to Traffic Devices [21450–21468] (Article 3 enacted by Stats. 1959, Ch. 3.), Section 21466.5. No person shall place or maintain or display, upon or in view of any highway, any light of any color of such brilliance as to impair the vision of drivers upon the highway.

Local

Town of Apple Valley General Plan

The Town's General Plan contains the following goals and policies applicable to aesthetics, visual resources, and the visual quality and character of the Project and the surrounding area.

Land Use Element

Goal 1: The Town shall respect its desert environment.

Policy 1.D: Areas of biological or aesthetic significance shall be protected from development.

Open Space and Conservation Element

Goal 1: The Town will conserve and protect natural resources in perpetuity.

Policy 1.B: Encourage the preservation, integrity, function, productivity and long-term viability of environmentally sensitive habitats, wildlife corridors, and significant geological features within the Town.

Goal 2: The Town shall encourage the preservation of significant native trees, native vegetation, landforms and wildlife habitat.

Policy 2.C: The Town will encourage the planting and preservation of native species of trees and plants to enhance the environment.

Policy 2.D: The Town shall provide specific parameters for development within and adjacent to natural hillsides.

Goal 4: The Town shall continue to emphasize the maintenance of, and access to, open space areas within the Town and vicinity.

Policy 4.A: The Town shall continue to monitor and manage designated open space areas and maintain improved recreational open space.

Biological Resources Element

Goal 1: Establish a pattern of community development that supports a functional, productive, and balanced relationship between the manmade environment and the natural environment.

Policy 1.B: The Town shall promote the use of native vegetation for landscaping to enhance and create viable habitat for local species.

Town of Apple Valley Municipal Code

The Town provides landscaping guidelines and regulations through Chapter 9.37 Commercial Development Standards (Section 9.37.050 Landscaping) and Chapter 9.75 Water Conservation/Landscaping Regulations (Section 9.75.050 Water Conserving Landscape Design Standards) of the Municipal Code. The purpose of these chapters is to provide water conservation and landscape development standards and guidelines that will promote the general welfare of the Town's residents by creating a responsible outdoor environment. The landscape regulations aim to achieve a diversity of drought-tolerant landscaping that is appropriate to the high-desert environment and creates aesthetically pleasing views and vistas along public streets.

The Town of Apple Valley has established sign regulation in Chapter 9.74 Signs and Advertising Displays of the Municipal Code. Section 9.74.110 General Design Criteria and Standards allows for high quality, efficient signage within the Town. As such, the Project would be required to adhere to this regulation.

Section 9.37.090 Lighting contains general performance standards related to light and glare for industrial development in Town. As such, the Project would be required to adhere to this regulation.

Regional Commercial (C-R) Zone Development Standards

Table 4.1-1, Town of Apple Valley Development Standards for C-R Zone describes the lot size, maximum floor area ratios, building height, setbacks, total landscape area and other standards for developments within the C-R (Regional Commercial) zone. Projects within the C-R (I-N) Zone must comply with C-R Zone Development Standards. As demonstrated in Table 4.1-2, the Project is consistent with the C-R Zone.

Table 4.1-1. Town of Apple Valley Development Standards for C-R Zone

Town of Apple Valley Development Standards for C-R Zone
Minimum Lot Size: 10,000 square feet
Minimum Width: N/A
Minimum Depth: N/A
Maximum Floor Area Ratio: 1.0
Maximum Building Height (For all other locations): 100 feet
Minimum Front Setback: from local streets: 35 feet
Minimum Front Setback: from major or secondary streets: 45 feet
Minimum rear setback: 30 feet; Setbacks for buildings located adjacent to a residential use or district shall be twenty-five (25) feet and rear and street side setbacks shall be as specified for that district, where applicable.
Minimum side setback: 30 feet; Setbacks for buildings located adjacent to a residential use or district shall be twenty-five (25) feet and rear and street side setbacks shall be as specified for that district, where applicable.
Minimum street side and rear setback: 30 feet; Setbacks for buildings located adjacent to a residential use or district shall be twenty-five (25) feet and rear and street side setbacks shall be as specified for that district, where applicable.
Accessory Structures: Allowed; Accessory Structures shall meet all of the setback requirements of the zoning district in which they are located.
Wall and Fences (Within Clear Site Triangle): 30 in
Wall and Fences (Solid Wall or Fences within front or street side setback): 42 in

Table 4.1-1. Town of Apple Valley Development Standards for C-R Zone

Town of Apple Valley Development Standards for C-R Zone
Open fencing constructed of wrought iron or other decorative metal and incorporating decorative features may be constructed either in conjunction with a solid wall(s) or fence(s) where the solid portion of the wall or fence is not more than two (2) feet in height, with the wrought iron or other decorative fencing extending not more than four (4) feet about the solid wall or fence (where the maximum overall height of the combined materials does not exceed six (6) feet) from the highest adjoining grade.
Wall and Fences (Open fences within front or street side setback): 72 in Open fencing constructed of wrought iron or other decorative metal and incorporating decorative features may be constructed either in conjunction with a solid wall(s) or fence(s) where the solid portion of the wall or fence is not more than two (2) feet in height, with the wrought iron or other decorative fencing extending not more than four (4) feet about the solid wall or fence (where the maximum overall height of the combined materials does not exceed six (6) feet) from the highest adjoining grade.
Wall and Fences (all other locations on site): 72 in
Outdoor Storage: Allowed Outdoor storage of materials and equipment shall not be permitted in the Commercial Districts except when it is clearly incidental to the permitted use on the site and in compliance with the provisions of this chapter. Such storage shall be located in the rear of the site and shall be completely screened from view from any roadway by a solid wall or opaque fence at least six (6) feet in height but not to exceed ten (10) feet in height. Said opaque fence or solid wall shall be constructed of or finished with materials that are similar to or compatible with those of the primary building on the site. Items that are being stored outdoors shall not be stacked to a height exceeding the height of the required wall or opaque fence. When on-site barriers are necessary for security, open fencing shall be used. High voltage electrification is not permitted.
Storage on Undeveloped Lots: Building materials for use on the same or adjacent parcel or building site may be stored on the parcel building site during the time that a valid building permit is in effect.
Storage of Building Materials: Allowed
Minimum Total Landscape Area: 10% Areas not utilized for structures, walkways, parking and driveways shall be landscaped. A minimum ten (10)-foot landscape strip is required along street frontages. This may include landscaping within the right-of-way. In the Mixed-Use district, 10% landscaping requirement applies for parking and project perimeter only. Additional landscaped open space is required for residential component of the project.

Source: Town of Apple Valley 2022.
Note: C-R = Regional Commercial.

4.1.3 Thresholds of Significance

The significance criteria used to evaluate the Project impacts to aesthetics are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to aesthetics would occur if the project 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 non-urbanized areas, 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, conflict with applicable zoning and other regulations governing scenic quality.

D. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.
E. Result in cumulatively considerable impacts with regard to aesthetic and visual considerations?

4.1.4 Impacts Analysis

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

Less-than-Significant Impact. As discussed in Section 4.1.1, the Project site and surrounding area contain predominantly undisturbed natural desert landscape, a large aggregate mining facility located adjacent to the east of the Project site, and stockpiles of aggregate material and a metal storage structure. Although scattered industrial, mining, and commercial uses (i.e., Walmart Distribution Center, Big Lots Distribution Center, Solar Energy Company, and interstate highways) exist in the area, the Project site and vicinity provide some scenic views of the surrounding landscape. Physical improvements proposed as part of the Project would be limited to the Project site and the immediate vicinity. Given that existing scenic resources are outside of the Project's disturbance footprint and are located between 5 and 20 miles away from the Project site, the Project would not result in any physical modifications to scenic resources that comprise a scenic vista.

A project could also have a potential indirect impact on a scenic vista if it results in a significant loss of viewing opportunities from publicly available viewpoints. Due to the relatively flat topography of the Project area, views of the Turtle Mountains, Black Mountains, Fairview Mountains, Sidewinder Mountains and San Gabriel and San Bernardino Mountains are available to viewer groups in the vicinity of the Project site, including motorists traveling on nearby highways and roads, as well as employees and visitors of the nearby commercial and light industrial areas. These viewers are provided intermittent background views of mountain ridgelines under optimal atmospheric conditions and when not obstructed by existing development in the area. Development of the Project's proposed buildings would result in some obstruction of these views where they are currently available from publicly accessible areas when viewed across the Project site. However, the presence of existing development, major roadways, and other man-made elements lowers viewer expectations of unobstructed views and precludes the significance of views of the mountains from the Project vicinity. While views of these features would be restored as viewers move throughout the Project area, higher quality, less-obstructed views are available in the greater Project area as viewers move throughout and outside of the Town (particularly for motorists traveling on I-15). Therefore, impacts associated with scenic vistas would be less than 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?

No Impact. There are no officially designated scenic roads or highways within Town boundaries. The nearest eligible scenic highway, Route 247, is located approximately 20 miles east of the Project site. Due to distance and intervening terrain, vegetation and development, the eligible scenic highways are not visible from the Project site, nor is the Project site visible from this highway. Therefore, no impacts associated with scenic resources within a state scenic highway would occur.

Threshold C: In non-urbanized areas, would the Project 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 points). If the Project is in an urbanized area, would the Project conflict with applicable zoning and other regulations governing scenic quality?

Less-than-Significant Impact. California Public Resources Code Section 21071 defines an "urbanized area" as "an incorporated city that meets either of the following criteria: (1) Has a population of at least 100,000 persons, or (2) Has a population of less than 100,000 persons if the population of that city and not more than two contiguous incorporated cities combined equals at least 100,000 persons." The Town's population in July 2021 was approximately 76,224 people (U.S. Census Bureau 2021). However, the Town is bordered by the City of Barstow to the north, City of Victorville to the west, Hesperia to the south, and the unincorporated San Bernardino County land to the east. The combined population of the Town of Apple Valley and any one of the contiguous cities is over 100,000 persons. Thus, the Project site is considered to be within an urbanized area and the following analysis considers whether the Project would conflict with applicable zoning or other regulations governing scenic quality.

In an attempt to ensure that current and future development within the Town is designed and constructed to conform to existing the visual character and quality, the Town of Apple Valley Development Code (Title 9 of the Town's Municipal Code) includes design standards related to building size, height, floor area ratio, and setbacks, as well as landscaping, signage, and other visual considerations. These design standards help adjacent land uses to be visually consistent with one another and their surroundings and reduces the potential for conflicting visual elements. More specific to the Project site, Chapter 9.47 (Industrial Design Standards) of the Town's Municipal Code sets forth development standards for industrial development. The design specifications for the Project will be reviewed by the Town for compliance with all applicable provisions set forth by the Town's Development Code. As part of the Town's development review process, the Project's architectural plans are reviewed by Town staff and the Planning Commission to determine whether Project design conforms to the Development Code and promotes the visual character and quality of the surrounding area. Table 4.1-2 provides a consistency analysis with the development standards for the C-R Zone (Title 9 Development Code).

Table 4.1-2. Project Consistency with Development Standards for C-R Zone

Town of Apple Valley Development Standards for C-R Zone	Project Design
Minimum Lot Size: 10,000 square feet **Minimum Width:** N/A **Minimum Depth:** N/A	***Consistent.*** Both building sites are consistent with these standards, as detailed below: <u>Building 1 Site</u> ▪ Lot Size: 94.92 acres (1,507,326 sf) <u>Building 2 Site</u> ▪ Lot Size: 76.13 acres (1,097,120 sf)
Maximum Floor Area Ratio: 1.0	***Consistent.*** The floor area ratio for both buildings is 0.3378. Individually, the floor area ratio for each building is .33 (Building 1) and .36 (Building 2)
Maximum Building Height (For all other locations): 100 feet	***Consistent.*** The maximum building height for both buildings would be 50 feet.
Minimum Front Setback from local streets: 35 feet **Minimum Front Setback from major or secondary streets:** 45 feet **Minimum rear setback:** 30 feet; Setbacks for buildings	***Consistent.*** After accounting for parking, landscape, and drive aisles, setbacks would range from approximately 117 feet to 766 feet.

Table 4.1-2. Project Consistency with Development Standards for C-R Zone

Town of Apple Valley Development Standards for C-R Zone	Project Design
located adjacent to a residential use or district shall be twenty-five (25) feet and rear and street side setbacks shall be as specified for that district, where applicable. **Minimum side setback:** 30 feet; Setbacks for buildings located adjacent to a residential use or district shall be twenty-five (25) feet and rear and street side setbacks shall be as specified for that district, where applicable. **Minimum street side and rear setback:** 30 feet; Setbacks for buildings located adjacent to a residential use or district shall be twenty-five (25) feet and rear and street side setbacks shall be as specified for that district, where applicable.	
Accessory Structures: Allowed; Accessory Structures shall meet all of the setback requirements of the zoning district in which they are located.	***Not Applicable.*** No accessory structures are proposed as part of the Project.
Wall and Fences (Within Clear Site Triangle): 30 in **Wall and Fences (Solid Wall or Fences within front or street side setback):** 42 in Open fencing constructed of wrought iron or other decorative metal and incorporating decorative features may be constructed either in conjunction with a solid wall(s) or fence(s) where the solid portion of the wall or fence is not more than two (2) feet in height, with the wrought iron or other decorative fencing extending not more than four (4) feet above the solid wall or fence (where the maximum overall height of the combined materials does not exceed six (6) feet) from the highest adjoining grade. **Wall and Fences (Open fences within front or street side setback):** 72 in Open fencing constructed of wrought iron or other decorative metal and incorporating decorative features may be constructed either in conjunction with a solid wall(s) or fence(s) where the solid portion of the wall or fence is not more than two (2) feet in height, with the wrought iron or other decorative fencing extending not more than four (4) feet about the solid wall or fence (where the maximum overall height of the combined materials does not exceed six (6) feet) from the highest adjoining grade unless greater height is required to screen an outdoor use in accordance with Section 9.06.0305.	***Consistent.*** No fences, walls, or structures would be constructed within the clear site triangle. Fencing proposed for the Project would consist of an 8-foot decorative wrought iron fence surrounding the buildings within the landscaped portion of the Project site. Fences and gates would limit site access for public safety and site security and provide screening for on-site uses.
Outdoor Storage: Allowed Outdoor storage of materials and equipment shall not be permitted in the Commercial Districts except when it is clearly incidental to the permitted use on the site and in compliance with the provisions of this chapter. Such storage shall be located in the rear of the site and shall	***Consistent.*** Work areas would primarily be located within the warehouse buildings; outdoor equipment such as yard trucks and pallets may be stored within the truck courts. These areas would be confined to the rear of the buildings and enclosed with fencing and vegetative screening.

Table 4.1-2. Project Consistency with Development Standards for C-R Zone

Town of Apple Valley Development Standards for C-R Zone	Project Design
be completely screened from view from any roadway by a solid wall or opaque fence at least six (6) feet in height but not to exceed ten (10) feet in height. Said opaque fence or solid wall shall be constructed of or finished with materials that are similar to or compatible with those of the primary building on the site. Items that are being stored outdoors shall not be stacked to a height exceeding the height of the required wall or opaque fence. When on-site barriers are necessary for security, open fencing shall be used. High voltage electrification is not permitted.	
Storage on Undeveloped Lots: Building materials for use on the same or adjacent parcel or building site may be stored on the parcel building site during the time that a valid building permit is in effect.	***Not Applicable.*** Building materials for the proposed Project would be confined to the Project area.
Storage of Building Materials: Allowed	***Consistent.*** Work areas would primarily be located within the warehouse buildings; outdoor equipment such as yard trucks and pallets may be stored within the truck courts. These areas would be confined to the rear of the buildings and enclosed with fencing and vegetative screening.
Minimum Total Landscape Area: 10% Areas not utilized for structures, walkways, parking and driveways shall be landscaped. A minimum ten (10)-foot landscape strip is required along street frontages. This may include landscaping within the right-of-way.	***Consistent.*** The total landscape area would exceed 10% of the Project site for the Project.
Maximum Floor Area Ratio (F.A.R): 1.0	**Consistent.** The floor area ratio for both buildings is 0.3378. Individually, the floor area ratio for each building is .33 (Building 1) and .36 (Building 2)

As provided in Table 4.1-2, the Project would be consistent with the development standards of the C-R zone.

Additionally, due to the size and scale of industrial buildings, it is especially important to consider design to ensure compatibility with other parts of the community. Title 9 Development Code provides in-depth information regarding design standards and guidelines for industrial development. In accordance with the Development Code design guidelines, all setback areas would be landscaped, and building orientation, siting and entrances would be designed to minimize conflicts with the surrounding visual environment. For instance, landscaping and vegetation is incorporated into the site plan to provide visual screening and building facades would feature a complementary neutral color palette and a variety of building materials.

Buildings would include materials such as concrete, metal, aluminum entry framing, and glass, and building elevations would include vertical and horizontal elements that would break up the overall massing of the buildings and provide visual interest (see Figures 3-9A through 3-9C, Conceptual Elevations, and 3-10, Conceptual Renderings, in Chapter 3, Project Description).

The visual setting surrounding the Project site currently consists of a natural desert landscape with scattered development. Development in the area includes light industrial/commercial uses, such as Walmart Distribution Center, Big Lots Distribution Center, Solar Energy Company, public roadways and landscaping, major interstate highways, and scattered residential uses. Undeveloped areas consist of flat desert terrain with sparse vegetation. As a result, the Project site and surrounding area can be characterized as low-density industrial development within a desert landscape setting. The Project would result in the development of vacant, undeveloped land with industrial buildings that would feature of contemporary architecture, landscaping, and streetscape improvements that would achieve development goals set forth in the General Plan. Additionally, stockpiling activities on site would be discontinued and areas currently utilized for stockpiling would be incorporated into the proposed Project.

In summary, the Project would not conflict with applicable zoning or other regulations governing scenic quality and the Project would be consistent with the visual character of the surrounding area. Therefore, compliance with the Town's Development Code and general plan guidelines and implementation of site-specific landscaping would ensure that the Project would not conflict with applicable zoning or other regulations governing scenic quality and impacts related to visual character and quality would be less than significant.

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?

Less-than-Significant Impact. The Project site does not currently support any existing sources of light or glare, and development of the Project would introduce new sources of light and glare to the Project site. However, developed portions of the Town contain numerous sources of light and glare typical of urban and semi-rural environments. Existing sources of light or glare include streetlights, freestanding lights, building-mounted lights, illuminated signage, reflective building materials, and vehicular headlights. The undeveloped portions of the Town, such as the Project site, contain few, if any, sources of light and glare. New sources of nighttime lighting resulting from the implementation of the Project include parking lot and loading area lighting, as well as building mounted lights. The Project would include a variety of exterior building light fixtures and parking lot lighting fixtures, including building mounted and pole mounted light fixtures. As depicted in Figures 3-9A through 3-9C and 3-10, building materials would primarily include concrete, metal, aluminum, and glass windows. These features could result in light trespass, light pollution, and glare.

The majority of construction activities associated with the Project would occur during daytime hours consistent with standard industry practices. In the event that work is required outside the standard construction hours (to reduce traffic or other impacts), lighting would be focused directly on work activity areas and would be temporary. As such, nighttime construction lighting impacts would be less than significant.

Upon Project implementation, the Project could potentially result in significant adverse light and glare impacts on nighttime views due to the addition of building and parking lot lighting. However, the Project would be required to minimize light and glare impacts to sensitive land uses through the incorporation of setbacks, site planning, and other design techniques. The Project would comply with Section 9.47.090, Lighting, of the Town's Municipal Code, which contains general performance standards related to light and glare for lighting uses associated with industrial development in Town. While the Project would not be located adjacent to any residential districts or lots, the Project's lighting would be designed such that lighting is directed on site and away from neighboring parcels. Lighting associated with streetlights would be designed consistent with Town standards for safety and proper roadway illumination, consistent with other streetlights throughout the Town. In addition, as part of the final engineering and site plan check phase, a photometric plan will be prepared by Town planning staff prior to

finalization of site plans. During this process, Town staff would ensure that Project lighting would not result in glare on adjacent properties.

Further, all light fixtures would be required to be consistent with the California Green Building Standards Code for illumination. The California Green Building Standards Code sets forth minimum requirements based on Lighting Zones, as defined in Chapter 10 of the California Administrative Code. The requirements are designed to minimize light pollution in an effort to maintain dark skies and ensure new development reduces backlight, uplight, and glare (BUG) from exterior light sources (CALGreen 2019). The Project would be required to comply with the CALGreen BUG rating for Lighting Zone 3. Further, all lights would be shielded and directed downward, and no blinking, flashing, or oscillating light sources is proposed.

The warehouse buildings would incorporate a variety of building materials. As depicted on Figures 3-8A and 3-8C and 3-9, building materials would primarily include concrete, metal, aluminum, and glass windows. Metal canopy overhands for shading would be include above building entrances, and aluminum entrance fronts would include glass and metal attachments. Blue reflective glazing and high gloss paint is proposed for the entrance fronts and canopies. Glass windows would consist of tempered vision insulated glass with a solarban 60 rating, which has a low exterior reflectance percentage to maximize daylighting opportunities to interior building spaces. Although metallic materials and glass have been incorporated into Project design, Project setbacks and proposed landscaping would provide screening to such Project elements from view, and all paint finishes would be flat (with the exception of the high gloss proposed for entrance fronts and canopies). As such, building materials would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area. Therefore, impacts associated with light and glare would be less than significant.

Threshold E: Would the Project result in cumulatively considerable impacts with regard to aesthetic and visual considerations?

Less-than-Significant Impact. The Project is located within the Town of Apple Valley, and thus, would be designed and constructed according to the design guidelines and standards outlined in the Town's Development Code and General Plan for industrial development. These guidelines and standards aim to protect the Town's high desert setting and panoramic mountain views while facilitating economic growth. All related projects located within the Town would be subject to these design guidelines and standards, which include recommendations for the architectural character of new buildings to maximize views of the landscape while taking inspiration from surrounding natural elements.

The development and design standards provide the framework for the desired aesthetic and visual environment. Other development projects in the area will incorporate development standards, design guidelines, and other strategies outlined in the Development Code. In addition, the Project's proposed building colors shall be reviewed to incorporate the colors and tones that match or complement the natural desert environment such that color contrasts with the surrounding cumulative environment would be minimized. Thus, cumulative impacts related to the visual quality and character of the Project area would not be cumulatively considerable, assuming that related Projects would implement the same mandatory design standards set forth in the Town's Development Code and general plan to which the Project must adhere.

Related development in the Town and surrounding areas would introduce new sources of light in a setting that includes large areas of undeveloped land. However, Project lighting would comply with existing requirements (i.e., lighting would be directed downward, shielded, and focused on the Project site) to ensure lighting has a minimal effect on the overall night sky and reduce the potential for glare. Other projects located throughout the Town

would similarly be required to comply with these regulations. Therefore, compliance with these regulations would ensure that lighting and glare impacts would be less than significant.

4.1.5 Mitigation Measures and Level of Significance After Mitigation

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

The Project would result in less-than-significant impacts to scenic vistas. No mitigation is required.

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 would result in no impact to scenic highways. No mitigation is required.

Threshold C. Would the Project, in non-urbanized areas, 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, conflict with applicable zoning and other regulations governing scenic quality?

The Project would result in less-than-significant impacts to visual character or quality. No mitigation is required.

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?

The Project would result in less-than-significant impacts to light and glare. No mitigation is required.

Threshold E: Would the Project result in cumulatively considerable impacts with regard to aesthetic and visual considerations?

The Project would not result in a cumulatively considerable impact to aesthetic and visual considerations. Project impacts would be less than significant.

4.1.6 References Cited

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4.2 Air Quality

This section describes the existing air quality conditions of the Inland Empire North Logistics Center Apple Valley (Project) site and vicinity, identifies associated regulatory requirements, evaluates potential air quality impacts, and identifies mitigation measures (MMs) related to implementation of the Project.

In addition to the documents incorporated by reference (see Section 2.7, Document Incorporated by Reference, of Chapter 2, Introduction, of this environmental impact report [EIR]), the following analysis is based, in part, on the following sources:

- Air Quality, Greenhouse Gas Emissions, and Energy Modeling Inputs and Outputs, prepared by Dudek in October 2023 (Appendix B-1)
- Health Risk Assessment, prepared by Dudek in October 2023 (Appendix B-2)
- Health Effects of Criteria Air Pollutants associated with the Project prepared by Dudek in October 2023 (Appendix B-3)
- Transportation Impact Analysis, prepared by David Evans and Associates in September 2023 (Appendix J)

4.2.1 Existing Conditions

Meteorological and Topographical Conditions

The Project site is located within the Mojave Desert Air Basin (MDAB).[1] The MDAB includes the desert portions of Los Angeles, Kern, San Bernardino, and Riverside Counties. Most of this area is commonly referred to as the high desert because elevations range from approximately 2,000 to 5,000 feet above mean sea level. The MDAB is generally above the regional inversion layer and experiences relatively good dispersion conditions.

The MDAB is separated from Southern California coastal regions and Central California valley regions by mountains extending up to 10,000 feet above mean sea level. As a result, the Mojave Desert is removed from the cooling effects of the Pacific Ocean and is characterized by extreme temperatures. The MDAB consists of an assemblage of mountain ranges interspersed with valleys that often contain dry lakes. Lower-elevation mountains scattered throughout the basin are generally 1,000 feet to 4,000 feet high. Mountain passes form channels for air masses flowing from the west and southwest, and the prevailing winds from the west and southwest are caused by the proximity of the MDAB to coastal and central regions and to the blocking effect of the Sierra Nevada to the north.

This MDAB region is characterized by hot, dry summers and cool winters, with little precipitation. During the summer, the MDAB is generally influenced by a Pacific subtropical high-pressure cell that resides off the coast of California. This high-pressure cell prevents cloud formation and engenders daytime solar heating. The MDAB is rarely influenced by the cold air masses that move south from Canada and Alaska, as these frontal systems diffuse by the time they reach the MDAB. Most moisture arrives in frequent warm, moist, unstable air masses from the south. The MDAB averages between 3 and 7 inches of precipitation per year (from 16 to 30 days with at least 0.01 inches of precipitation). The Victorville California Irrigation Management Information System station recorded an average annual precipitation of 6.0 inches of precipitation between September 2022 and August 2023 (CIMIS 2023). The

[1] The description of the MDAB climate and topography is based on the Mojave Desert Air Quality Management District (MDAQMD) 2020 CEQA and Federal Conformity Guidelines (MDAQMD 2020a). The description of the Western Mojave Desert ozone (O_3) nonattainment area is based the MDAQMD Federal 8-Hour Ozone Attainment Plan for the Western Mojave Desert Non-Attainment Area (MDAQMD 2008).

MDAB is classified as a dry–hot desert climate, with portions classified as dry–very hot desert, to indicate at least 3 months have maximum average temperatures over 100.4°F (MDAQMD 2008).

The Project is also located within the Mojave Desert Air Quality Management District (MDAQMD) portion of the Western Mojave Desert ozone (O_3) nonattainment area (MDAQMD 2008), which includes the following San Bernardino County communities: Phelan, Hesperia, Adelanto, Victorville, Apple Valley, Barstow, Joshua Tree, Yucca Valley, and Twentynine Palms (the southwestern portion of the MDAQMD).

Pollutants and Effects

Criteria Air Pollutants

Criteria air pollutants are defined as pollutants for which the federal and state governments have established minimum ambient air quality standards (AAQS), or criteria, for outdoor pollutant concentrations in order to protect public health. The federal and state standards have been set, with an adequate margin of safety, at levels above which concentrations could be harmful to human health and welfare. These standards are designed to protect the most sensitive persons from illness or discomfort. Pollutants of concern include ozone (O_3), nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide (SO_2), particulate matter with an aerodynamic diameter less than or equal to 10 microns (PM_{10}), particulate matter with an aerodynamic diameter equal to or less than 2.5 microns ($PM_{2.5}$), and lead (Pb). These pollutants, as well as toxic air contaminants (TACs), are discussed below.[2] In California, sulfates, vinyl chloride, hydrogen sulfide, and visibility-reducing particles are also regulated as criteria air pollutants.

Ozone. O_3 is a strong-smelling, pale blue, reactive, toxic chemical gas consisting of three oxygen atoms. It is a secondary pollutant formed in the atmosphere by a photochemical process involving the sun's energy and O_3 precursors. These precursors are mainly oxides of nitrogen (NO_x) and volatile organic compounds (VOCs) (also referred to as reactive organic gases). The maximum effects of precursor emissions on O_3 concentrations usually occur several hours after they are emitted and many miles from the source. Meteorology and terrain play major roles in O_3 formation, and ideal conditions occur during summer and early autumn on days with low wind speeds or stagnant air, warm temperatures, and cloudless skies. O_3 exists in the upper atmosphere O_3 layer (stratospheric O_3) and at Earth's surface in the lower atmosphere (tropospheric O_3).[3] The O_3 that the U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) regulate as a criteria air pollutant is produced close to ground level, where people live, exercise, and breathe. Ground-level O_3 is a harmful air pollutant that causes numerous adverse health effects and is thus considered "bad" O_3. Stratospheric, or "good," O_3 occurs naturally in the upper atmosphere, where it reduces the amount of ultraviolet light (i.e., solar radiation) entering the Earth's atmosphere. Without the protection of the beneficial stratospheric O_3 layer, plant and animal life would be seriously harmed.

Adverse Health Effects**:** O_3 in the troposphere causes numerous adverse health effects; short-term exposures (lasting for a few hours) to O_3 can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes (EPA 2020). Inhalation of O_3 causes inflammation and irritation of the tissues lining human airways, causing and worsening a variety of symptoms. Exposure to O_3 can reduce the volume of air that the lungs breathe in and can cause shortness of breath. O_3 in sufficient doses increases the permeability of lung cells, rendering them more susceptible to toxins and microorganisms. The occurrence and severity of health effects from O_3 exposure vary widely among individuals, even when the dose and the duration of exposure are the same. Research shows adults and children who spend

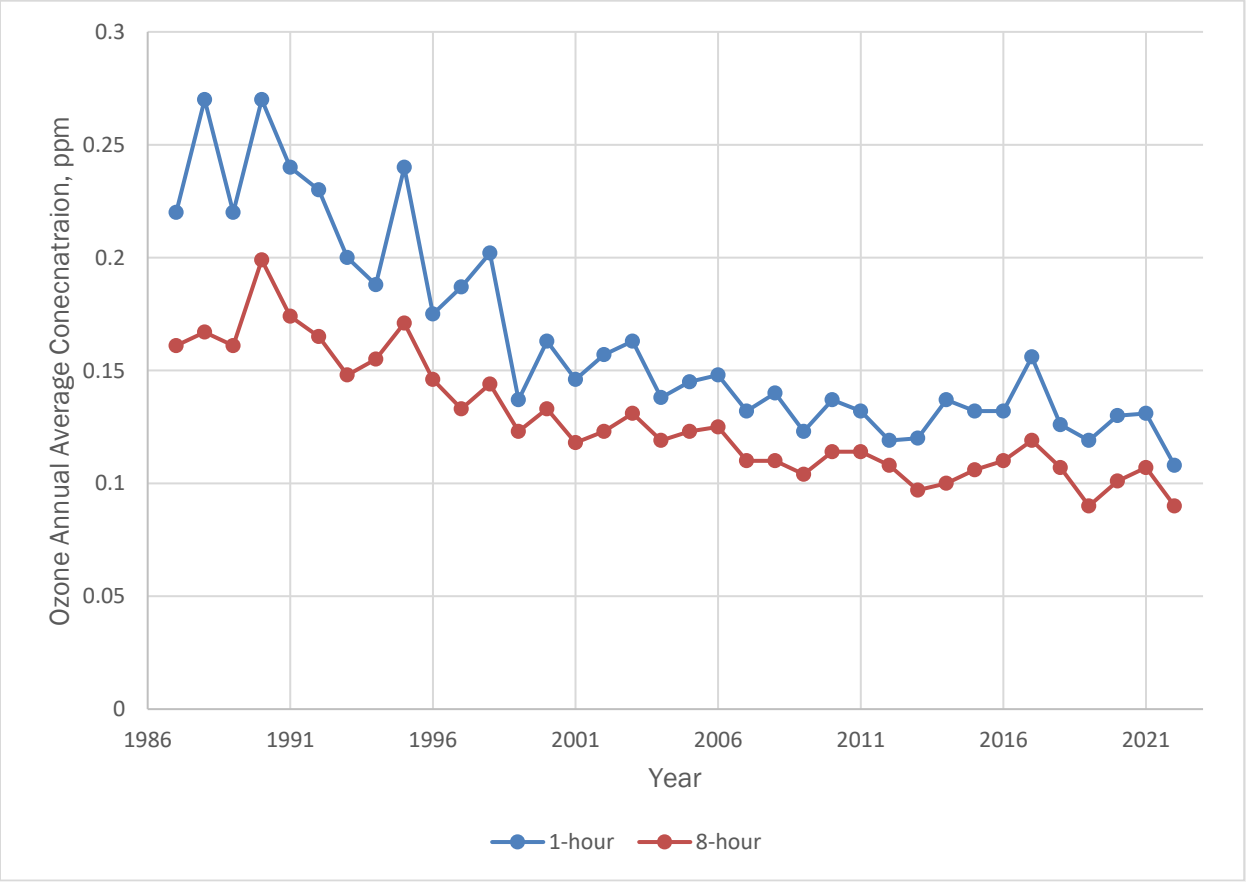
[2] The descriptions of the criteria air pollutants and associated health effects are based on the U.S. Environmental Protection Agency's "Criteria Air Pollutants" (EPA 2023a), as well as the California Air Resources Board's "Glossary" (CARB 2023a).

[3] The troposphere is the layer of Earth's atmosphere nearest to the surface of Earth, extending outward approximately 5 miles at the poles and approximately 10 miles at the equator.

more time outdoors participating in vigorous physical activities are at greater risk from the harmful health effects of O_3 exposure. While there are relatively few studies of O_3's effects on children, the available studies show that children are no more or less likely to suffer harmful effects than adults. However, there are a number of reasons why children may be more susceptible to O_3 and other pollutants. Children and teens spend nearly twice as much time outdoors and engaged in vigorous activities as adults. Children breathe more rapidly than adults and inhale more pollution per pound of their body weight than adults. Also, children are less likely than adults to notice their own symptoms and avoid harmful exposures. Further research may be able to better distinguish between health effects in children and adults. Children, adolescents, and adults who exercise or work outdoors, where O_3 concentrations are the highest, are at the greatest risk of harm from this pollutant (CARB 2023b).

Air quality in the MDAB has generally improved since the inception of air pollutant monitoring. This improvement is mainly a result of lower-polluting on-road motor vehicles, more stringent regulation of industrial sources, and the implementation of emission reduction strategies by the MDAQMD and nearby air districts including the South Coast Air Quality Management District (SCAQMD) and the San Joaquin Valley Air Pollution Control District, as well as CARB and EPA. This general trend toward cleaner air within the state, including the MDAB, has occurred in spite of continued population growth. Exhibit 4.2-1, State Ozone Trend – Mojave Desert Air Basin, demonstrates the reduction in O_3 over time.

Exhibit 4.2-1. State 1-Hour and 8-Hour Ozone Concentration Trend in MDAB (ppm)



Source: CARB 2023c, iADAM Air Quality Statistics. Units = parts per million (ppm).

Nitrogen Dioxide. NO_2 is a brownish, highly reactive gas that is present in all urban atmospheres. The major mechanism for the formation of NO_2 in the atmosphere is the oxidation of the primary air pollutant nitric oxide (NO), which is a colorless, odorless gas. NO_x, which includes NO_2 and NO, plays a major role, together with VOC, in the atmospheric reactions that produce O_3. NO_x is formed from fuel combustion under high temperature or pressure. In addition, NO_2 is an important precursor to acid rain and may affect both terrestrial and aquatic ecosystems. The two major emissions sources are transportation and stationary fuel combustion sources (such as electric utility and industrial boilers).

Adverse Health Effects: A large body of health science literature indicates that exposure to NO_2 can induce adverse health effects. The strongest health evidence, and the health basis for the AAQS for NO_2, results from controlled human exposure studies that show that NO_2 exposure can intensify responses to allergens in allergic asthmatics. In addition, a number of epidemiological studies have demonstrated associations between NO_2 exposure and premature death, cardiopulmonary effects, decreased lung function growth in children, respiratory symptoms, emergency room visits for asthma, and intensified allergic responses. Infants and children are particularly at risk because they have disproportionately higher exposure to NO_2 than adults due to their greater breathing rate for their body weight and their typically greater outdoor exposure duration. Several studies have shown that long-term NO_2 exposure during childhood, the period of rapid lung growth, can lead to smaller lungs at maturity in children with higher compared to lower levels of exposure. In addition, children with asthma have a greater degree of airway responsiveness compared with adult asthmatics. In adults, the greatest risk is to people who have chronic respiratory diseases, such as asthma and chronic obstructive pulmonary disease (CARB 2023d).

Carbon Monoxide. CO is a colorless, odorless gas formed by the incomplete combustion of hydrocarbon, or fossil fuels. CO is emitted almost exclusively from motor vehicles, power plants, refineries, industrial boilers, ships, aircraft, and trains. In urban areas, automobile exhaust accounts for the majority of CO emissions. CO is a nonreactive air pollutant that dissipates relatively quickly; therefore, ambient CO concentrations generally follow the spatial and temporal distributions of vehicular traffic. CO concentrations are influenced by local meteorological conditions—primarily wind speed, topography, and atmospheric stability. CO from motor vehicle exhaust can become locally concentrated when surface-based temperature inversions are combined with calm atmospheric conditions, which is a typical situation at dusk in urban areas from November to February. The highest levels of CO typically occur during the colder months of the year, when inversion conditions are more frequent.

Adverse Health Effects: CO is harmful because it binds to hemoglobin in the blood, reducing the ability of blood to carry oxygen. This interferes with oxygen delivery to the body's organs. The most common effects of CO exposure are fatigue, headaches, confusion and reduced mental alertness, light-headedness, and dizziness due to inadequate oxygen delivery to the brain. For people with cardiovascular disease, short-term CO exposure can further reduce their body's already compromised ability to respond to the increased oxygen demands of exercise, exertion, or stress. Inadequate oxygen delivery to the heart muscle leads to chest pain and decreased exercise tolerance. Unborn babies whose mothers experience high levels of CO exposure during pregnancy are at risk of adverse developmental effects. Unborn babies, infants, elderly people, and people with anemia or with a history of heart or respiratory disease are most likely to experience health effects with exposure to elevated levels of CO (CARB 2023e).

Sulfur Dioxide. SO_2 is a colorless, pungent gas formed primarily from incomplete combustion of sulfur-containing fossil fuels. The main sources of SO_2 are coal and oil used in power plants and industries; as such, the highest levels of SO_2 are generally found near large industrial complexes. In recent years, SO_2 concentrations have been reduced by the increasingly stringent controls placed on stationary source emissions of SO_2 and limits on the sulfur content of fuels.

Adverse Health Effects: Controlled human exposure and epidemiological studies show that children and adults with asthma are more likely to experience adverse responses with SO_2 exposure, compared with the non-asthmatic population. Effects at levels near the 1-hour standard are those of asthma exacerbation, including bronchoconstriction accompanied by symptoms of respiratory irritation such as wheezing, shortness of breath, and chest tightness, especially during exercise or physical activity. Also, exposure at elevated levels of SO_2 (above 1 part per million [ppm]) results in increased incidence of pulmonary symptoms and disease, decreased pulmonary function, and increased risk of mortality. The elderly and people with cardiovascular disease or chronic lung disease (such as bronchitis or emphysema) are most likely to experience these adverse effects (CARB 2023f).

SO_2 is of concern both because it is a direct respiratory irritant and because it contributes to the formation of sulfate and sulfuric acid in particulate matter (NRC 2005). People with asthma are of particular concern, both because they have increased baseline airflow resistance and because their SO_2-induced increase in airflow resistance is greater than in healthy people, and it increases with the severity of their asthma (NRC 2005). SO_2 is thought to induce airway constriction via neural reflexes involving irritant receptors in the airways (NRC 2005).

Particulate Matter. Particulate matter pollution consists of very small liquid and solid particles floating in the air, which can include smoke, soot, dust, salts, acids, and metals. Particulate matter can form when gases emitted from industries and motor vehicles undergo chemical reactions in the atmosphere. $PM_{2.5}$ and PM_{10} represent fractions of particulate matter. Coarse particulate matter (PM_{10}) is about 1/7 the thickness of a human hair. Major sources of PM_{10} include crushing or grinding operations; dust stirred up by vehicles traveling on roads; wood-burning stoves and fireplaces; dust from construction, landfills, and agriculture; wildfires and brush/waste burning; industrial sources; windblown dust from open lands; and atmospheric chemical and photochemical reactions. Fine particulate matter ($PM_{2.5}$) is roughly 1/28 the diameter of a human hair. $PM_{2.5}$ results from fuel combustion (e.g., from motor vehicles, power generation, and industrial facilities), residential fireplaces, and woodstoves. In addition, $PM_{2.5}$ can be formed in the atmosphere from gases such as sulfur oxides, NO_x, and VOCs.

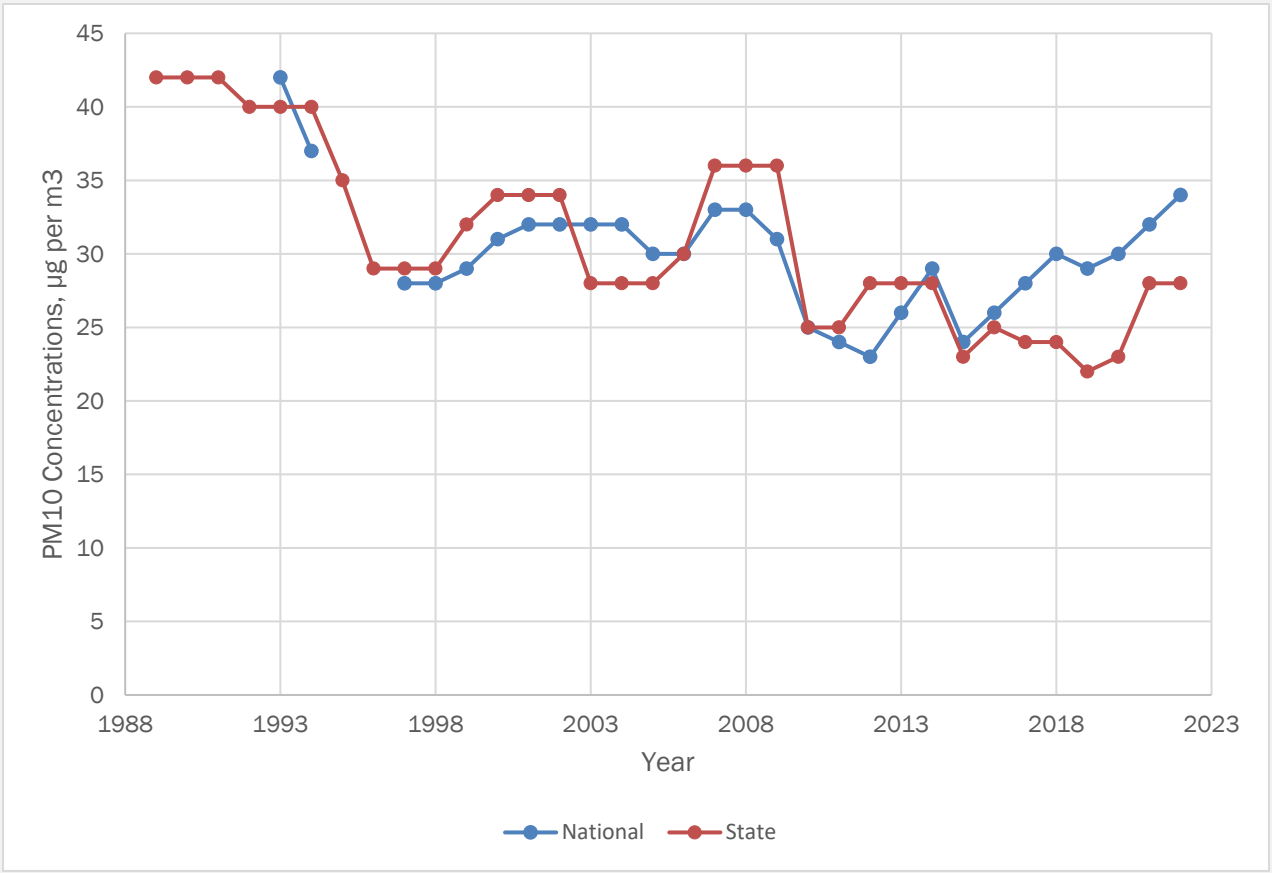
Adverse Health Effects: $PM_{2.5}$ and PM_{10} pose a greater health risk than larger-size particles. When inhaled, these tiny particles can penetrate the human respiratory system's natural defenses and damage the respiratory tract. $PM_{2.5}$ and PM_{10} can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections. Very small particles of substances such as lead, sulfates, and nitrates can cause lung damage directly or be absorbed into the bloodstream, causing damage elsewhere in the body. Additionally, these substances can transport adsorbed gases such as chlorides or ammonium into the lungs, also causing injury. Whereas PM_{10} tends to collect in the upper portion of the respiratory system, $PM_{2.5}$ is so tiny that it can penetrate deeper into the lungs and damage lung tissue. Suspended particulates also damage and discolor surfaces on which they settle and produce haze and reduce regional visibility.

A number of adverse health effects have been associated with exposure to both $PM_{2.5}$ and PM_{10}. For $PM_{2.5}$, short-term exposures (up to 24-hour duration) have been associated with premature mortality, increased hospital admissions for heart or lung causes, acute and chronic bronchitis, asthma attacks, emergency room visits, respiratory symptoms, and restricted activity days. These adverse health effects have been reported primarily in infants, children, and older adults with preexisting heart or lung diseases. In addition, of all of the common air pollutants, $PM_{2.5}$ is associated with the greatest proportion of adverse health effects related to air pollution, both in the United States and worldwide based on the World Health Organization's Global Burden of Disease Project. Short-term exposures to PM_{10} have been associated primarily with worsening of respiratory diseases, including asthma and chronic obstructive pulmonary disease, leading to hospitalization and emergency department visits (CARB 2023g).

Long-term exposure (months to years) to $PM_{2.5}$ has been linked to premature death, particularly in people who have chronic heart or lung diseases, and reduced lung function growth in children. The effects of long-term exposure to PM_{10} are less clear, although several studies suggest a link between long-term PM_{10} exposure and respiratory mortality. The International Agency for Research on Cancer published a review in 2015 that concluded that particulate matter in outdoor air pollution causes lung cancer (CARB 2023g).

As discussed for Ozone, air quality in the MDAB has generally improved since the inception of air pollutant monitoring including PM_{10} ambient concentrations. Exhibit 4.2-2, National and State 3-Year Average PM10 Statistics – Mojave Desert Air Basin, demonstrates the reduction in PM_{10} trend over time.

Exhibit 4.2-2. National and State 3-Year Average PM_{10} Statistics – Mojave Desert Air Basin



Source: CARB 2023c, iADAM Air Quality Statistics. Units = micrograms per cubic meter.

Lead. Lead in the atmosphere occurs as particulate matter. Sources of lead include leaded gasoline; the manufacturing of batteries, paints, ink, ceramics, and ammunition; and secondary lead smelters. Prior to 1978, mobile emissions were the primary source of atmospheric lead. Between 1978 and 1987, the phase out of leaded gasoline reduced the overall inventory of airborne lead by nearly 95%. With the phase out of leaded gasoline, secondary lead smelters, battery recycling, and manufacturing facilities are becoming lead-emissions sources of greater concern.

Adverse Health Effects: Prolonged exposure to atmospheric lead poses a serious threat to human health. Health effects associated with exposure to lead include gastrointestinal disturbances, anemia, kidney disease, and, in severe cases, neuromuscular and neurological dysfunction. Of particular concern are low-level lead exposures during infancy and childhood because children are highly susceptible to the effects of lead. Such exposures are associated with decrements in neurobehavioral performance, including intelligence quotient performance, psychomotor performance, reaction time, and growth.

Sulfates. Sulfates are the fully oxidized form of sulfur, which typically occur in combination with metals or hydrogen ions. Sulfates are produced from reactions of SO_2 in the atmosphere.

Adverse Health Effects: Sulfates can result in respiratory impairment, as well as reduced visibility.

Vinyl Chloride. Vinyl chloride is a colorless gas with a mild, sweet odor, which has been detected near landfills, sewage plants, and hazardous waste sites, due to the microbial breakdown of chlorinated solvents.

Adverse Health Effects: Short-term exposure to high levels of vinyl chloride in air can cause nervous system effects, such as dizziness, drowsiness, and headaches. Long-term exposure through inhalation can cause liver damage, including liver cancer.

Hydrogen Sulfide. Hydrogen sulfide is a colorless and flammable gas that has a characteristic odor of rotten eggs. Sources of hydrogen sulfide include geothermal power plants, petroleum refineries, sewers, and sewage treatment plants.

Adverse Health Effects: Exposure to hydrogen sulfide can result in nuisance odors, as well as headaches and breathing difficulties at higher concentrations.

Visibility-Reducing Particles. Visibility-reducing particles are any particles in the air that obstruct the range of visibility. Sources of visibility-reducing particles are the same as for $PM_{2.5}$ described above.

Adverse Effects: Effects of reduced visibility can include obscuring the viewshed of natural scenery, reducing airport safety, and discouraging tourism.

Volatile Organic Compounds. Hydrocarbons are organic gases that are formed from hydrogen and carbon and sometimes other elements. Hydrocarbons that contribute to formation of O_3 are referred to and regulated as VOCs. Combustion engine exhaust, oil refineries, and fossil-fueled power plants are the main sources of hydrocarbons. Other sources of hydrocarbons include evaporation from petroleum fuels, solvents, dry cleaning solutions, and paint.

Adverse Health Effects: The primary health effects of VOCs result from the formation of O_3 and its related health effects. High levels of VOCs in the atmosphere can interfere with oxygen intake by reducing the amount of available oxygen through displacement. Carcinogenic forms of hydrocarbons, such as benzene, are considered TACs. There are no separate health standards for VOCs as a group.

Non-Criteria Air Pollutants

Toxic Air Contaminants. A substance is considered toxic if it has the potential to cause adverse health effects in humans, including increasing the risk of cancer upon exposure, or acute and/or chronic noncancer health effects. A toxic substance released into the air is considered a TAC. TACs are identified by federal and state agencies based on a review of available scientific evidence. In California, TACs are identified through a two-step process that was

established in 1983 under the Toxic Air Contaminant Identification and Control Act. This two-step process of risk identification and risk management and reduction was designed to protect residents from the health effects of toxic substances in the air. In addition, the California Air Toxics "Hot Spots" Information and Assessment Act, Assembly Bill (AB) 2588, was enacted by the legislature in 1987 to address public concern over the release of TACs into the atmosphere. The law requires facilities emitting toxic substances to provide local air pollution control districts with information that will allow an assessment of the air toxics problem, identification of air toxics emissions sources, location of resulting hotspots, notification of the public exposed to significant risk, and development of effective strategies to reduce potential risks to the public over 5 years.

Examples of TACs include certain aromatic and chlorinated hydrocarbons, certain metals, and asbestos. TACs are generated by a number of sources, including stationary sources, such as dry cleaners, gas stations, combustion sources, and laboratories; mobile sources, such as automobiles; and area sources, such as landfills.

Adverse Health Effects: Adverse health effects associated with exposure to TACs may include carcinogenic (i.e., cancer-causing) and noncarcinogenic effects. Noncarcinogenic effects typically affect one or more target organ systems and may be experienced on either short-term (acute) or long-term (chronic) exposure to a given TAC.

Diesel Particulate Matter. Diesel particulate matter (DPM) is part of a complex mixture that makes up diesel exhaust. Diesel exhaust is composed of two phases, gas and particle, both of which contribute to health risks. More than 90% of DPM is less than 1 micrometer in diameter (about 1/70 the diameter of a human hair), and thus is a subset of $PM_{2.5}$ (CARB 2023h). DPM is typically composed of carbon particles (soot, also called black carbon) and numerous organic compounds, including over 40 known carcinogenic organic substances. Examples of these chemicals include polycyclic aromatic hydrocarbons, benzene, formaldehyde, acetaldehyde, acrolein, and 1,3-butadiene (CARB 2023h). In August 1998, CARB classified "particulate emissions from diesel-fueled engines" (i.e., DPM) (17 CCR 93000) as a TAC. DPM is emitted from a broad range of diesel engines: on-road diesel engines of trucks, buses, and cars and off-road diesel engines including locomotives, marine vessels, and heavy-duty construction equipment, among others.

Adverse Health Effects: Approximately 70% of all airborne cancer risk in California is associated with DPM (CARB 2000). To reduce the cancer risk associated with DPM, CARB adopted a diesel risk reduction plan in 2000 (CARB 2000). Because it is part of PM2.5, DPM also contributes to the same noncancer health effects as PM2.5 exposure. These effects include premature death; hospitalizations and emergency department visits for exacerbated chronic heart and lung disease, including asthma; increased respiratory symptoms; and decreased lung function in children. Several studies suggest that exposure to DPM may also facilitate development of new allergies (CARB 2023h). Those most vulnerable to noncancer health effects are children, whose lungs are still developing, and the elderly, who often have chronic health problems.

Odorous Compounds. Odors are generally regarded as an annoyance rather than a health hazard. Manifestations of a person's reaction to odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). The ability to detect odors varies considerably among the population and overall is quite subjective. People may have different reactions to the same odor. An odor that is offensive to one person may be perfectly acceptable to another (e.g., a coffee roaster). An unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. In a phenomenon known as odor fatigue, a person can become desensitized to almost any odor, and recognition may only occur with an alteration in the intensity. The occurrence and severity of odor impacts depend on the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of receptors.

Valley Fever. Coccidioidomycosis, more commonly known as "Valley Fever," is an infection caused by inhalation of the spores of the *Coccidioides immitis* fungus, which grows in the soils of the southwestern United States. The

ecologic factors that appear to be most conducive to survival and replication of the spores are high summer temperatures, mild winters, sparse rainfall, and alkaline, sandy soils. San Bernardino County is not considered a highly endemic region for Valley Fever as the latest report from the California Department of Public Health listed San Bernardino County as having 11.4 cases per 100,000 people in 2021 (CDPH 2022).

Sensitive Receptors

Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. People most likely to be affected by air pollution include children, the elderly, athletes, and people with cardiovascular and chronic respiratory diseases. Facilities and structures where these air pollution-sensitive people live or spend considerable amounts of time are known as sensitive receptors. Land uses where air pollution-sensitive individuals are most likely to spend time include schools and schoolyards, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential communities (sensitive sites or sensitive land uses) (CARB 2005). The MDAQMD identifies sensitive receptors as residences, schools, playgrounds, childcare centers, and medical facilities (MDAQMD 2020a).

Local Ambient Air Quality

Mojave Desert Air Basin Attainment Designation

Pursuant to the 1990 federal Clean Air Act amendments, the EPA classifies air basins (or portions thereof) as "attainment" or "nonattainment" for each criteria air pollutant, based on whether the National Ambient Air Quality Standards (NAAQS) have been achieved. Generally, if the recorded concentrations of a pollutant are lower than the standard, the area is classified as "attainment" for that pollutant. If an area exceeds the standard, the area is classified as "nonattainment" for that pollutant. If there is not enough data available to determine whether the standard is exceeded in an area, the area is designated as "unclassified" or "unclassifiable." The designation of "unclassifiable/attainment" means that the area meets the standard or is expected to meet the standard despite a lack of monitoring data. Areas that achieve the standards after a nonattainment designation are re-designated as maintenance areas and must have approved maintenance plans to ensure continued attainment of the standards. The California Clean Air Act, like its federal counterpart, called for the designation of areas as "attainment" or "nonattainment," but based on California Ambient Air Quality Standards (CAAQS) rather than the NAAQS. Table 4.2-1 depicts the current attainment status of the Project area with respect to the NAAQS and CAAQS. Notably, the MDAB has experienced a substantial reduction in maximum 8-hour concentrations of O_3 over time, as well as reductions in PM_{10}, from strategies including implementation of Reasonable Available Control Technology, vehicle emission standards, and other measures, as described in the respective MDAQMD O_3 attainment plan (MDAQMD 2008) and PM_{10} attainment demonstration and maintenance plan (MDAQMD 1995).

Table 4.2-1. Mojave Desert Air Basin Attainment Classification

Pollutant	Designation/Classification[a]	
	Federal Standards	State Standards
O_3 – 1 hour	No federal standard	Nonattainment
O_3 – 8 hours	Severe nonattainment[b]	Nonattainment
NO_2	Unclassifiable/attainment	Attainment
CO	Unclassifiable/attainment	Attainment
SO_2	Unclassifiable/attainment	Attainment
PM_{10}	Moderate nonattainment[c]	Nonattainment

Table 4.2-1. Mojave Desert Air Basin Attainment Classification

Pollutant	Designation/Classification[a]	
	Federal Standards	State Standards
$PM_{2.5}$	Unclassifiable/attainment	Attainment[d]
Lead	Unclassifiable/attainment	Attainment
Hydrogen sulfide	No federal standard	Unclassified[e]
Sulfates	No federal standard	Attainment
Visibility-reducing particles	No federal standard	Unclassified
Vinyl chloride	No federal standard	No designation

Sources: EPA 2023b (federal); CARB 2023i (state); MDAQMD 2023a (federal and state).
Notes: O_3 = ozone; NO_2 = nitrogen dioxide; CO = carbon monoxide; SO_2 = sulfur dioxide; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter.

[a] Designations/classifications in **bold** type indicate nonattainment.

[b] West Mojave Desert portion of the MDAB, where the Project is located, is designated severe nonattainment, defined as a concentration of 0.163 ppm or above. The Kern County portion of the MDAB is designated moderate nonattainment, defined as a concentration of 0.081 ppm up to but not including 0.105 ppm. The remaining areas of the MDAB are designated unclassifiable/attainment.

[c] The Project is located in an area designated moderate nonattainment in the MDAB (San Bernadino County). PM_{10} areas that are out of attainment are first designated as moderate and have 6 years from the designation status to meet the standards, after which time the designation is changed to serious nonattainment.

[d] The Project is located in an area designated attainment in the MDAB.

[e] The entire MDAB is designated unclassified, except for the Searles Valley portion of the basin, which is designated nonattainment.

Definitions: attainment = meets the standards; attainment/maintenance = achieve the standards after a nonattainment designation; nonattainment = does not meet the standards; unclassified or unclassifiable = insufficient data to classify; unclassifiable/attainment = meets the standard or is expected to be meet the standard despite a lack of monitoring data.

In summary, the Project is located in an area of the MDAB that is designated as a nonattainment area for federal and state O_3 standards and federal and state PM_{10} standards, and unclassifiable/attainment for all other criteria air pollutants (EPA 2023b; CARB 2023i).

Despite the current nonattainment status for O_3 and PM_{10}, air quality in the MDAB has generally improved since the inception of air pollutant monitoring as discussed previously and presented in Exhibit 4.2-1 and Exhibit 4.2-2, for O_3 and PM_{10}, respectively.

The MDAQMD is downwind of the Los Angeles basin, and to a lesser extent, is downwind of the San Joaquin Valley. Prevailing winds transport O_3 and O_3 precursors from both regions into and through the MDAB during the summer O_3 season and these transport couplings have been officially recognized by CARB. While local MDAQMD emissions contribute to exceedances of both the NAAQS and CAAQS for O_3, the MDAB would likely be in attainment of O_3 standards without the influence of this transported air pollution from upwind regions like the South Coast Air Basin (MDAQMD 2023b). Nonetheless, the MDAQMD has experienced a substantial reduction in maximum 8-hour ozone concentrations. Per the O_3 indicator values between 1995 and 2020 within the Western Mojave Desert, all indicators, including number of exceedance days, have decreased since 1995, indicating overall improvements in the various measures of O_3 air quality, with the most pronounced progress occurring at the high ozone sites (MDAQMD 2023b). The three stations closest to the South Coast Air Basin have the highest historical O_3 concentrations (Phelan, Hesperia and the Joshua Tree National Monument), while the more distant or isolated stations (Barstow) have lower O_3 concentrations (MDAQMD 2023b).

Regarding PM, which is a primary and secondary pollutant, the MDAQMD believes that local sources contribute to PM_{10} concentrations in the Mojave Desert Planning Area as the monitoring sites are located in and around

anthropogenic sources of dust (e.g., primary PM); however, O_3 precursor transport from upwind air basins include some nitrate and sulfate aerosol or secondary particulates, which contribute to PM concentrations. Because the Mojave Desert Planning Area contains relatively limited NO_x and sulfur sources, transport contributions are estimated as half of the measured total nitrate and sulfate content, which contribute to overall PM concentrations (MDAQMD 1995).

Accordingly, it is important to note that the SCAQMD, which has jurisdiction over the South Coast Air Basin, has also experienced an improvement in air quality over the last few decades. The SCAQMD implements air quality plans, such as 2022 Air Quality Management Plan, which are comprehensive documents that outline their air pollution control program for attaining all CAAQS and NAAQS. Specifically, the SCAQMD 2022 Air Quality Management Plan addresses attainment of the 2015 8-hour O_3 standard (70 parts per billion) for the South Coast Air Basin and the Coachella Valley. PM_{10} levels have declined almost 50% since 1990 within the South Coast Air Basin, and $PM_{2.5}$ levels have also declined 50% since measurements began in 1999 (SCAQMD 2015). Similar improvements are observed with O_3 within the SCAB, although the rate of O_3 decline has slowed in recent years (SCAQMD 2022). Despite great strides in cleaning the air over the past several decades, the Los Angeles area still has the highest levels of O_3 in the nation and meeting the O_3 standards within the South Coast Air Basin will require federal action and zero- and low-emission technologies to reduce NO_x. Overall, improvements within the South Coast Air Basin will also result in improvements within the MDAB. Lastly, the MDAQMD continues to implement available control technologies and rules and regulations to further reduce sources of O_3 and PM within their jurisdictional boundaries including attainment plans and rule development, as explained in Section 4.2.2, Relevant Regulations, Plans, Policies, and Ordinances (Local).

Local Ambient Air Quality Conditions

CARB, air districts, and other agencies monitor ambient air quality at approximately 250 air quality monitoring stations across the state. The MDAQMD monitors local ambient air quality in the Project area. Air quality monitoring stations usually measure pollutant concentrations 10 feet above ground level; therefore, air quality is often referred to in terms of ground-level concentrations. The most recent background ambient air quality data from 2019 to 2021 are presented in Table 4.2-2. The Victorville monitoring station, located at 14306 Park Avenue, Victorville, California, is the nearest air quality monitoring station to the Project site, and is located approximately 7 miles southwest of the Project. The data collected at this station are considered representative of the air quality experienced in the Project vicinity. Air quality data for O_3, NO_2, CO, SO_2, PM_{10}, and $PM_{2.5}$ from the Victorville monitoring station are provided in Table 4.2-2. The number of days exceeding the AAQS is also shown in Table 4.2-2.

Table 4.2-2. Local Ambient Air Quality Data

Monitoring Station	Unit	Averaging Time	Agency/ Method	Ambient Air Quality Standard	Measured Concentration by Year			Exceedances by Year		
					2020	2021	2022	2020	2021	2022
Ozone (O_3)										
Victorville	Ppm	Maximum 1-hour concentration	State	0.09	0.112	0.112	0.100	4	8	
	ppm	Maximum 8-hour concentration	State	0.070	0.095	0.098	0.090	38	35	44
			Federal	0.070	0.094	0.098	0.090	35	34	44

Table 4.2-2. Local Ambient Air Quality Data

Monitoring Station	Unit	Averaging Time	Agency/ Method	Ambient Air Quality Standard	Measured Concentration by Year			Exceedances by Year		
					2020	2021	2022	2020	2021	2022
Nitrogen Dioxide (NO_2)										
Victorville	ppm	Maximum 1-hour concentration	State	0.18	0.059	0.056	0.050	0	0	0
			Federal	0.100	0.059	0.056	0.050	0	0	0
	ppm	Annual concentration	State	0.030	0.012	0.012	0.013	0	0	0
			Federal	0.053	0.012	0.012	0.013	0	0	0
Carbon Monoxide (CO)										
Victorville	ppm	Maximum 1-hour concentration	State	20	1.6	1.5	—	0	0	—
			Federal	35	1.6	1.5	—	0	0	—
	ppm	Maximum 8-hour concentration	State	9.0	1.4	1.0	—	0	0	—
			Federal	9	1.4	1.0	—	0	0	—
Sulfur Dioxide (SO^2)										
Victorville	ppm	Maximum 1-hour concentration	Federal	0.075	0.004	0.003	—	0	0	—
	ppm	Maximum 24-hour concentration	Federal	0.14	0.002	0.002	—	0	0	—
	ppm	Annual concentration	Federal	0.030	0.001	—	—	0	—	—
Coarse Particulate Matter (PM_{10})[a]										
Victorville	µg/ m^3	Maximum 24-hour concentration	State	50	—	—	—	—	—	—
			Federal	150	261.4	591.6	372	1.9 (2)	1.0 (1)	1)2.1(2)
	µg/ m^3	Annual concentration	State	20	—	—	—	—	—	—
Fine Particulate Matter ($PM_{2.5}$)[a]										
Victorville	µg/ m^3	Maximum 24-hour concentration	Federal	35	48.4	87.1	20.4	4.0 (4)	1.0 (1)	0
	µg/ m^3	Annual concentration	State	12	10.4	10.3	9.0	0	0	0
			Federal	12.0	9.7	10.2	8.8	0	0	0

Sources: CARB 2023c; EPA 2023c.
Notes: ppm = parts per million; µg/m^3 = micrograms per cubic meter; — = not available.
Data taken from CARB iADAM (CARB 2023c) and EPA AirData (EPA 2023c) represent the highest concentrations experienced over a given year.
Exceedances of federal and state standards are only shown for O_3 and particulate matter. Daily exceedances for particulate matter are estimated days because PM_{10} and $PM_{2.5}$ are not monitored daily. All other criteria pollutants did not exceed federal or state standards during the years shown. There is no federal standard for 1-hour ozone, annual PM_{10}, or 24-hour SO_2, nor is there a state 24-hour standard for $PM_{2.5}$.

[a] Measurements of PM_{10} and $PM_{2.5}$ are usually collected every 6 days and every 1 to 3 days, respectively. Number of days exceeding the standards is a mathematical estimate of the number of days concentrations would have been greater than the level of the standard had each day been monitored. The numbers in parentheses are the measured number of samples that exceeded the standard.

4.2.2 Relevant Regulations, Plans, Policies, and Ordinances

Federal

Criteria Air Pollutants

The federal Clean Air Act, passed in 1970 and last amended in 1990, forms the basis for the national air pollution control effort. The EPA is responsible for implementing most aspects of the Clean Air Act, including setting NAAQS for major air pollutants; setting hazardous air pollutant (HAP) standards; approving state attainment plans; setting motor vehicle emission standards; issuing stationary source emission standards and permits; and establishing acid rain control measures, stratospheric O_3 protection measures, and enforcement provisions. Under the Clean Air Act, NAAQS are established for the following criteria pollutants: O_3, CO, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and lead.

The NAAQS describe acceptable air quality conditions designed to protect the health and welfare of the public. The NAAQS (other than for O_3, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and those based on annual averages or arithmetic mean) are not to be exceeded more than once per year. NAAQS for O_3, NO_2, SO_2, PM_{10}, and $PM_{2.5}$ are based on statistical calculations over 1- to 3-year periods, depending on the pollutant. The Clean Air Act requires the EPA to reassess the NAAQS at least every 5 years to determine whether adopted standards are adequate to protect public health based on current scientific evidence. States with areas that exceed the NAAQS must prepare a state implementation plan that demonstrates how those areas will attain the standards within mandated time frames.

Hazardous Air Pollutants

The 1977 federal Clean Air Act amendments required the EPA to identify national emission standards for HAPs to protect public health and welfare. HAPs include certain volatile organic chemicals, pesticides, herbicides, and radionuclides that present a tangible hazard, based on scientific studies of exposure to humans and other mammals. Under the 1990 federal Clean Air Act amendments, which expanded the control program for HAPs, 189 substances and chemical families were identified as HAPs.

State

Criteria Air Pollutants

The federal Clean Air Act delegates the regulation of air pollution control and the enforcement of the NAAQS to the states. In California, the task of air quality management and regulation has been legislatively granted to CARB, with subsidiary responsibilities assigned to air quality management districts and air pollution control districts at the regional and county levels. CARB, which became part of the California Environmental Protection Agency in 1991, is responsible for ensuring implementation of the California Clean Air Act of 1988, responding to the federal Clean Air Act, and regulating emissions from motor vehicles and consumer products.

CARB has established the CAAQS, which are generally more restrictive than the NAAQS. As stated previously, an ambient air quality standard defines the maximum amount of a pollutant averaged over a specified period of time that can be present in outdoor air without harm to the public's health. For each pollutant, concentrations must be below the relevant CAAQS before a basin can attain the corresponding CAAQS. Air quality is considered “in attainment” if

pollutant levels are continuously below the CAAQS and violate the standards no more than once each year. The CAAQS for O_3, CO, SO_2 (1-hour and 24-hour), NO_2, PM_{10}, and $PM_{2.5}$ and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded.

California air districts have based their thresholds of significance for California Environmental Quality Act (CEQA) purposes on the levels that scientific and factual data demonstrate that the air basin can accommodate without affecting the attainment date for the NAAQS or CAAQS. Since an ambient air quality standard is based on maximum pollutant levels in outdoor air that would not harm the public's health, and air district thresholds pertain to attainment of the ambient air quality standard, this means that the thresholds established by air districts are also protective of human health. The NAAQS and CAAQS are presented in Table 4.2-3.

Table 4.2-3. Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[a]	National Standards[b]	
		Concentration[c]	Primary[c,d]	Secondary[c,e]
O_3	1 hour	0.09 ppm (180 µg/m³)	—	Same as primary standard[f]
	8 hours	0.070 ppm (137 µg/m³)	0.070 ppm (137 µg/m³)[f]	
NO_2[g]	1 hour	0.18 ppm (339 µg/m³)	0.100 ppm (188 µg/m³)	Same as primary standard
	Annual arithmetic mean	0.030 ppm (57 µg/m³)	0.053 ppm (100 µg/m³)	
CO	1 hour	20 ppm (23 mg/m³)	35 ppm (40 mg/m³)	None
	8 hours	9.0 ppm (10 mg/m³)	9 ppm (10 mg/m³)	
SO_2[h]	1 hour	0.25 ppm (655 µg/m³)	0.075 ppm (196 µg/m³)	—
	3 hours	—	—	0.5 ppm (1,300 µg/m³)
	24 hours	0.04 ppm (105 µg/m³)	0.14 ppm (for certain areas)[g]	—
	Annual	—	0.030 ppm (for certain areas)[g]	—
PM_{10}[i]	24 hours	50 µg/m³	150 µg/m³	Same as primary standard
	Annual arithmetic mean	20 µg/m³	—	
$PM_{2.5}$[i]	24 hours	—	35 µg/m³	Same as primary standard
	Annual arithmetic mean	12 µg/m³	12.0 µg/m³	15.0 µg/m³
Lead[j,k]	30-day average	1.5 µg/m³	—	—
	Calendar quarter	—	1.5 µg/m³ (for certain areas)[k]	Same as primary standard
	Rolling 3-month average	—	0.15 µg/m³	
Hydrogen sulfide	1 hour	0.03 ppm (42 µg/m³)	—	—

Table 4.2-3. Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[a]	National Standards[b]	
		Concentration[c]	Primary[c,d]	Secondary[c,e]
Vinyl chloride[j]	24 hours	0.01 ppm (26 µg/m^3)	—	—
Sulfates	24 hours	25 µg/m^3	—	—
Visibility reducing particles	8 hours (10:00 a.m. to 6:00 p.m. PST)	Insufficient amount to produce an extinction coefficient of 0.23 per kilometer due to the number of particles when the relative humidity is less than 70%	—	—

Source: CARB 2016.

Notes: O_3 = ozone; ppm = parts per million by volume; µg/m^3 = micrograms per cubic meter; NO_2 = nitrogen dioxide; CO = carbon monoxide; mg/m^3= milligrams per cubic meter; SO_2 = sulfur dioxide; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; PST = Pacific Standard Time.

[a] California standards for O_3, CO, SO_2 (1-hour and 24-hour), NO_2, suspended particulate matter (PM_{10}, $PM_{2.5}$), and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. CAAQS are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[b] National standards (other than O_3, NO_2, SO_2, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once per year. The O_3 standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over 3 years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than 1. For $PM_{2.5}$, the 24-hour standard is attained when 98% of the daily concentrations, averaged over 3 years, are equal to or less than the standard.

[c] Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based on a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

[d] National primary standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.

[e] National secondary standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

[f] On October 1, 2015, the national 8-hour O_3 primary and secondary standards were lowered from 0.075 to 0.070 ppm.

[g] To attain the national 1-hour standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 parts per billion (ppb). Note that the national 1-hour standard is in units of ppb. California standards are in units of ppm. To directly compare the national 1-hour standard to the California standards, the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

[h] On June 2, 2010, a new 1-hour SO_2 standard was established, and the existing 24-hour and annual primary standards were revoked. To attain the national 1-hour standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until 1 year after an area is designated for the 2010 standard, except that in areas designated nonattainment of the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

[i] On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 µg/m^3 to 12.0 µg/m^3. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 µg/m^3, as was the annual secondary standard of 15 µg/m^3. The existing 24-hour PM_{10} standards (primary and secondary) of 150 µg/m^3 were also retained. The form of the annual primary and secondary standards is the annual mean averaged over 3 years.

[j] CARB has identified lead and vinyl chloride as TACs with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[k] The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5 µg/m^3 as a quarterly average) remains in effect until 1 year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

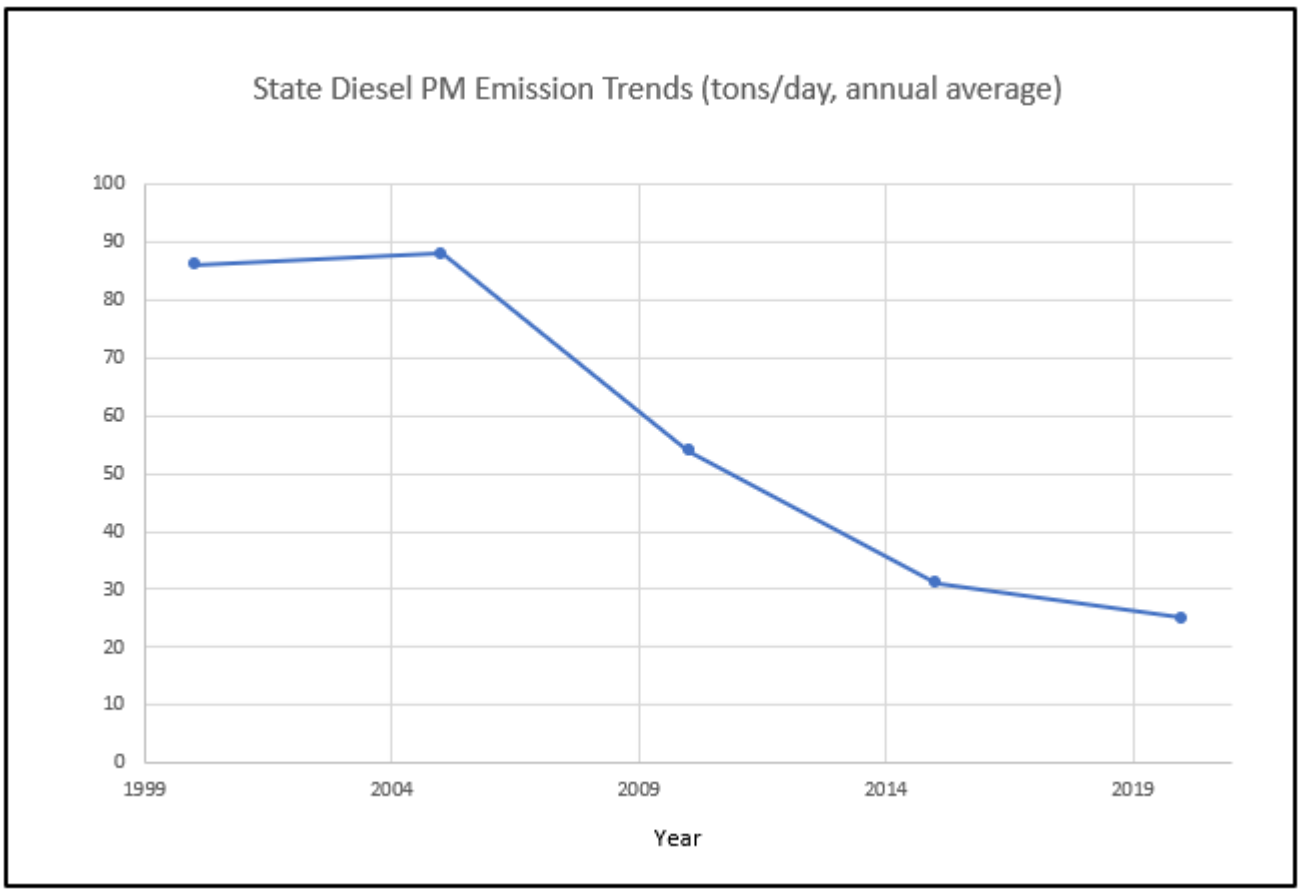
Toxic Air Contaminants

The state Air Toxics Program was established in 1983 under AB 1807 (Tanner). The California TAC list identifies more than 200 pollutants, of which carcinogenic and noncarcinogenic toxicity criteria have been established for a subset of these pollutants pursuant to the California Health and Safety Code. In accordance with AB 2728, the state list includes the (federal) HAPs. In 1987, the Legislature enacted the Air Toxics "Hot Spots" Information and Assessment Act of 1987 (AB 2588) to address public concern over the release of TACs into the atmosphere. AB 2588 law requires facilities emitting toxic substances to provide local air pollution control districts with information that will allow an assessment of the air toxics problem, identification of air toxics emissions sources, location of resulting hotspots, notification of the public exposed to significant risk, and development of effective strategies to reduce potential risks to the public over 5 years. TAC emissions from individual facilities are quantified and prioritized. "High-priority" facilities are required to perform a health risk assessment (HRA), and if specific thresholds are exceeded, the facility operator is required to communicate the results to the public in the form of notices and public meetings. As a result of the state Air Toxics Program, more than 30,000 facilities have reduced their toxic emissions, which has led to the reduction of cancer risk in California by about 80% since 1990 (CARB 2023j).

In 2000, CARB approved a comprehensive Diesel Risk Reduction Plan to reduce diesel emissions from both new and existing diesel-fueled vehicles and engines (CARB 2000). The regulation is anticipated to result in an 80% decrease in statewide diesel health risk in 2020 compared with the diesel risk in 2000. Additional regulations apply to new trucks and diesel fuel, including the On-Road Heavy Duty Diesel Vehicle (In-Use) Regulation, the On-Road Heavy Duty (New) Vehicle Program, the In-Use Off-Road Diesel Vehicle Regulation, and the New Off-Road Compression-Ignition (Diesel) Engines and Equipment Program. These regulations and programs have timetables by which manufacturers must comply and existing operators must upgrade their diesel-powered equipment. There are several Airborne Toxic Control Measures that reduce diesel emissions, including In-Use Off-Road Diesel-Fueled Fleets (13 CCR 2449 et seq.) and In-Use On-Road Diesel-Fueled Vehicles (13 CCR 2025).

In 2013 CARB published the California Almanac of Emissions and Air Quality. The Almanac contains 20-year trend summaries of air quality and emissions data for five criteria pollutants: ozone, PM_{10}, CO, NO_2, and SO_2. Data are summarized for the State as a whole and for the five most populated air basins (South Coast, San Francisco Bay Area, San Joaquin Valley, San Diego, and Sacramento Valley). In addition to information on criteria pollutants, the Almanac provides information on air quality and emissions for DPM. Exhibit 4.2-3 provides a graphical depiction of the diesel particulate matter emissions trend for the State based on the CARB California Almanac of Emissions and Air Quality 2013 report. As shown the trend of DPM is decreasing significantly since 2005 to report projected year 2020, 88 tons per day, annual average to 25 tons per day, annual average, respectively.

Exhibit 4.2-3. Statewide Diesel Particulate Matter Trends



Source: CARB 2013, California Almanac of Emissions and Air Quality 2013

California Health and Safety Code Section 41700

Section 41700 of the California Health and Safety Code states that a person shall not discharge from any source whatsoever quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; or that endanger the comfort, repose, health, or safety of any of those persons or the public; or that cause, or have a natural tendency to cause, injury or damage to business or property. This section also applies to sources of objectionable odors.

Local

Mojave Desert Air Quality Management District

The MDAQMD is the regional agency responsible for the regulation and enforcement of federal, state, and local air pollution control regulations in the San Bernardino County portion of the MDAB, where the Project is located. The

MDAQMD operates monitoring stations in the MDAB, develops rules and regulations for stationary sources and equipment, prepares emissions inventory and air quality management planning documents, and conducts source testing and inspections. The MDAQMD's air quality management plans include control measures and strategies to be implemented to attain state and federal AAQS in the MDAB. The MDAQMD then implements these control measures as regulations to control or reduce criteria pollutant emissions from stationary sources or equipment. The MDAQMD's most recent air quality plans are the PM_{10} attainment demonstration and maintenance plan (MDAQMD 1995) and the O_3 attainment plan (MDAQMD 2023b).

Applicable Rules. Emissions that would result from mobile, area, and stationary sources during construction and operation of the Project are subject to the rules and regulations of the MDAQMD. The MDAQMD rules applicable to the Project may include, but are not limited to, the following:

- **Rule 219 – Equipment Not Requiring a Permit:** The rule identifies equipment exempt from permit requirements of District Rules 201 and 203.
  - District permit required for Internal combustion engines with manufacturer's maximum continuous rating greater than or equal to 50 brake horsepower
- **Rule 401 – Visible Emissions:** This rule establishes the limit for visible emissions from stationary sources.
- **Rule 402 – Nuisance:** This rule prohibits the discharge of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health, or safety of any such persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property.
- **Rule 403 – Fugitive Dust Control for the Mojave Desert Planning Area:** This rule ensures that the NAAQS for PM_{10} will not be exceeded due to anthropogenic sources of fugitive dust within the Mojave Desert Planning Area and implements the control measures contained in the Mojave Desert Planning Area Federal PM_{10} Attainment Plan. Rule 403 includes requirements for a Dust Control Plan, signage and fencing requirements, as well as surface watering and stabilization with chemicals, gravel and asphaltic pavement to eliminate visible fugitive dust from vehicular travel and wind erosion.
- **Rule 431 – Sulfur Content of Liquid Fuels:** The purpose of this rule is to limit the sulfur content in diesel and other liquid fuels for the purpose of reducing the formation of SO_x and particulates during combustion and of enabling the use of add-on control devices for diesel-fueled internal combustion engines. The rule applies to all refiners, importers, and other fuel suppliers such as distributors, marketers, and retailers, as well as to users of diesel, low-sulfur diesel, and other liquid fuels for stationary-source applications in the MDAQMD. The rule also affects diesel fuel supplied for mobile sources.
- **Rule 442 – Usage of Solvents:** The purpose of this rule is to reduce VOC emissions from VOC-containing materials or equipment that is not subject to limits of any rule found in District Regulation XI – Source Specific Standards.
- **Rule 1113 – Architectural Coatings.** This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories (MDAQMD 2020b).

Southern California Association of Governments

The Southern California Association of Governments (SCAG) is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties and serves as a forum for regional issues relating to transportation, the economy, community development, and the environment. SCAG serves as the federally

designated metropolitan planning organization for the Southern California region and is the largest metropolitan planning organization in the United States.

On September 3, 2020, SCAG's Regional Council adopted the 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy, also known as Connect SoCal (2020–2045 RTP/SCS). The 2020 RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals. The 2020 RTP/SCS closely integrates land use and transportation planning efforts so that the region can grow smartly and sustainably. The 2020–2045 RTP/SCS was prepared through a collaborative, continuous, and comprehensive process with input from local governments, county transportation commissions, tribal governments, nonprofit organizations, businesses, and local stakeholders within Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties. In June 2020, SCAG received its conformity determination from the Federal Highway Administration and the Federal Transit Administration indicating that all air quality conformity requirements for the 2016 RTP/SCS and associated 2019 Federal Transportation Improvement Program Consistency Amendment through Amendment No. 19-12 have been met (SCAG 2020).

Town of Apple Valley General Plan

The Town of Apple Valley General Plan contains the following goals and policies applicable to air quality and the Project (Town of Apple Valley 2009):

Air Quality Element

Goal: To preserve and enhance local and regional air quality.

Policy 1.A**:** The Town shall cooperate with the MDAQMD to assure compliance with air quality standards.

Policy 1.B: The Town shall proactively regulate local pollutant emitters by coordinating and cooperating with local, regional and federal efforts to monitor, manage and decrease the levels of major pollutants affecting the Town and region, with particular emphasis on PM10 and ozone emissions, as well as other emissions associated with diesel-fueled equipment and motor vehicles.

Policy 1.C: The Town shall coordinate land use planning efforts to assure that sensitive receptors are reasonably separated from polluting point sources including mineral extraction operations.

Policy 1.D: All proposals for development activities within the Town shall be reviewed for their potential to adversely impact local and regional air quality and shall be required to mitigate any significant impacts.

Policy 1.E: The use of clean and/or renewable alternative energy sources for transportation, heating and cooling, and construction shall be encouraged by the Town.

Policy 1.F: The Town shall support, encourage, and facilitate the development of projects that enhance the use of alternative modes of transportation, including pedestrian-oriented retail and activity centers, dedicated bicycle paths and lanes, and community-wide multi-use trails.

Policy 1.G: Future residential, commercial, and industrial development and remodeling projects, shall strive to exceed Title 24 standards by 15% and/or achieve LEED certification or similar performance standards for buildings.

Policy 1.H: Residential, commercial, and industrial projects that reduce vehicle miles traveled (VMTs) by providing alternative transportation options, home office and live/work spaces, and/or promote employees living close to work are preferred.

Policy 1.I; The Town shall continue to reduce waste generation, enhance recycling or reuse programs, and expand grey water systems for landscape irrigation.

Policy 1.J: The Town shall promote the use of solar and alternative energies and give priority to projects that include the use of solar cells and other alternative energy sources in their designs.

4.2.3 Thresholds of Significance

The significance criteria used to evaluate the Project impacts to air quality are based on CEQA Guidelines Appendix G. According to CEQA Guidelines Appendix G, a significant impact related to air quality would occur if the Project 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.
C. Expose sensitive receptors to substantial pollutant concentrations.
D. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.
E. Result in cumulatively considerable air quality impacts.

CEQA Guidelines Appendix G indicates that, where available, significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to determine whether the Project would have a significant impact on air quality. As outlined in the MDAQMD's CEQA and Federal Conformity Guidelines (MDAQMD 2020a), a project would result in a significant environmental impact if it:

1. Would generate total emissions (direct and indirect) in excess of the established significance thresholds (presented as Table 4.2-4)
2. Would generate a violation of any ambient air quality standard when added to the local background
3. Does not conform with the applicable attainment or maintenance plan
4. Would expose sensitive receptors to substantial pollutant concentrations, including those resulting in a cancer risk greater than or equal to 10 in a million (10×10^{-6}) and/or a hazard index (noncarcinogenic) greater than or equal to 1

Residences, schools, daycare centers, playgrounds, and medical facilities are considered sensitive receptor land uses. The following project types proposed for sites within the specified distance to an existing or planned sensitive receptor land use must be evaluated using Threshold 4:

- Any industrial project within 1,000 feet
- A distribution center (40 or more trucks per day) within 1,000 feet

- A major transportation project (50,000 or more vehicles per day) within 1,000 feet
- A dry cleaner using perchloroethylene within 500 feet
- A gasoline dispensing facility within 300 feet

The MDAQMD CEQA Air and Federal Conformity Guidelines (MDAQMD 2020a) sets forth quantitative emission significance thresholds for criteria air pollutants below which a project would not have a significant impact on ambient air quality. Project-related air quality emissions estimated in this environmental analysis would be considered significant if any of the applicable significance thresholds presented in Table 4.2-4 are exceeded. The emission-based thresholds for O_3 precursors are intended to serve as a surrogate for an "ozone significance threshold" (i.e., the potential for adverse O_3 impacts to occur) because O_3 itself is not emitted directly. MDAQMD recommends that its quantitative air pollution thresholds be used to determine the significance of project emissions.

Table 4.2-4. Mojave Desert Air Quality Management District Daily Air Quality Significance Thresholds

Pollutant	Daily Threshold (pounds per day)
VOC	137
NO_x	137
CO	548
SO_x	137
PM_{10}	82
$PM_{2.5}$	65
Hydrogen sulfide[a]	54
Lead[a]	3

Source: MDAQMD 2020a.
Notes: VOC = volatile organic compound; NOx = oxides of nitrogen; CO = carbon monoxide; SOx = sulfur oxides; PM10 = coarse particulate matter; PM2.5 = fine particulate matter.

[a] The Project includes typical equipment and on-road vehicles, which result in negligible (if any) emissions of hydrogen sulfide and lead. Therefore, these pollutants are not discussed in this analysis.

Regarding localized CO, although the MDAQMD does not have screening levels for intersection traffic that could result in potential CO hotspots, several other air districts have established these levels, which are described below to provide context of the magnitude of hourly volumes that could result in significant localized CO:

- The SCAQMD conducted CO modeling for its 2003 Air Quality Management Plan (SCAQMD 2003) for the four worst-case intersections in the South Coast Air Basin. At the time the 2003 Air Quality Management Plan was prepared, the intersection of Wilshire Boulevard and Veteran Avenue was the most congested intersection in Los Angeles County, with an average daily traffic volume of approximately 100,000 vehicles per day. Using CO emission factors for 2002, the peak modeled CO 1-hour concentration was estimated to be 4.6 ppm at the intersection of Wilshire Boulevard and Veteran Avenue. Accordingly, CO concentrations at congested intersections would not exceed the 1-hour or 8-hour CO CAAQS unless projected daily traffic would be at least more than 100,000 vehicles per day.

Based on the Project's proximity to the South Coast Air Basin, the SCAQMD screening criterion of 100,000 vehicles per day has been applied to this Project as a metric to evaluate CO hotspots.

Methodology

Emissions from construction and operation of the Project and existing land uses were estimated using the California Emissions Estimator Model (CalEEMod) Version 2022.1.[4] CalEEMod input parameters, including the Project land use type and size and construction schedule, were based on information provided by the Project Applicant, or default model assumptions if Project specifics were unavailable.

Construction

For the purpose of estimating Project emissions, construction was modeled beginning in September 2024 and concluding at the end of May 2026[5] lasting approximately 21 months. On-site facility development and off-site improvements were accounted for in the modeling. The Project schedule assumptions utilized CalEEMod default model assumptions with the exception of the "Building Construction" phase, which was reduced from the CalEEMod default construction duration of approximately 6 years. Given that these building types are typically erected using "tilt-up" concrete panels, the "Building Construction" phase is significantly shorter than traditional construction methods that the CalEEMod modeling defaults assume. The schedule durations outlined here reflect an accurate schedule for the building assembly; all other default phase durations were maintained (i.e., grading of the site used the CalEEMod default timing). Further, construction equipment needed for assembly of the tilt-up buildings is less than that required for traditional construction, and therefore the construction equipment defaults used in the analysis represent a conservative estimate.

The analysis contained herein is based on the following schedule assumptions (duration of phases is approximate):

- Site preparation: September 2024 -- November 2024
- Grading: November 2024 – April 2025
- Building construction: April 2025 – December 2025
- Paving: December 2025 – March 2026
- Architectural coating: March 2026 – May 2026

Construction modeling assumptions for equipment and vehicles are provided in Table 4.2-5. For the analysis, it was generally assumed that heavy-duty construction equipment would be operating at the site 5 days per week. For on-site development, it was assumed that approximately 1,500,000 cubic yards of cut and 1,500,000 cubic yards of fill would be required during the grading phase. It was also assumed that the Project would balance cut and fill onsite, thus not requiring any haul truck trips for import or export of cut and fill.

[4] CalEEMod is a statewide computer model developed in cooperation with air districts throughout the state to quantify criteria air pollutant emissions associated with the construction and operational activities from a variety of land use projects, such as residential, commercial, and industrial facilities.

[5] The analysis assumes a construction start date of September 2024, which represents the earliest date construction would initiate. Assuming the earliest start date for construction represents the worst-case scenario for criteria air pollutant and greenhouse gas emissions, because equipment and vehicle emission factors for later years would be slightly less due to more stringent standards for in-use off-road equipment and heavy-duty trucks, as well as fleet turnover replacing older equipment and vehicles in later years.

Table 4.2-5. Construction Scenario Assumptions

Construction Phase	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Average Daily Haul Truck Trips	Equipment Type	Quantity	Daily Usage Hours
Site Preparation	18	6	0	Rubber Tired Dozers	3	8
				Tractors/Loaders/ Backhoes	4	8
Grading	20	6	0	Excavators	2	8
				Graders	1	8
				Rubber Tired Dozers	1	8
				Scrapers	2	8
				Tractors/Loaders/ Backhoes	2	8
Building Construction	1,404	548	0	Cranes	1	7
				Forklifts	3	8
				Generator Sets	1	8
				Tractors/Loaders/ Backhoes	3	7
				Welders	1	8
Paving	16	6	0	Pavers	2	8
				Paving Equipment	2	8
				Rollers	2	8
Architectural Coating	282	0	0	Air Compressors	1	6

Source: Appendix B-1.

Operation

Emissions from the operational phase of the Project were estimated using CalEEMod. Operational year 2026 was assumed consistent with the assumptions in the EIR's transportation analysis (Appendix J).

Area Sources

CalEEMod was used to estimate operational emissions from area sources, including emissions from consumer product use, architectural coatings, and landscape maintenance equipment. Emissions associated with natural gas usage in space heating and water heating are calculated in the building energy use module of CalEEMod, as described in the following text.

Consumer products are chemically formulated products used by household and institutional consumers, including detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn, and garden products; disinfectants; sanitizers; aerosol paints; and automotive specialty products. Other paint products, furniture coatings, or architectural coatings are not considered consumer products (CAPCOA 2022). Consumer product VOC emissions were estimated in CalEEMod based on the floor area of buildings and default factor of pounds of VOC per building square foot per day. The CalEEMod default values for consumer products were assumed.

VOC off-gassing emissions result from evaporation of solvents contained in surface coatings, such as in paints and primers used during building maintenance. CalEEMod calculates the VOC evaporative emissions from the application of surface coatings based on the VOC emission factor, the building square footage, the assumed fraction of surface area, and the reapplication rate. The VOC emissions factor is based on the VOC content of the surface coatings, and MDAQMD Rule 1113, Architectural Coatings (MDAQMD 2020b), governs the VOC content for interior and exterior coatings. This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories. Based on the limits in Rule 1113 of 50 g/L VOC content for flat and nonflat coatings, 50 g/L VOC content was assumed for all coatings used in the Project. CalEEMod default values were assumed for the surface area to be painted and the reapplication rate of 10% of area per year.

Landscape maintenance includes fuel combustion emissions from equipment such as lawn mowers, rototillers, shredders/grinders, blowers, trimmers, chainsaws, and hedge trimmers. The emissions associated with landscape equipment use were estimated based on CalEEMod default values for emission factors (grams per square foot of building space per day) and number of summer days (when landscape maintenance would generally be performed) and winter days.

Mobile Sources

The Project would generate criteria pollutant emissions from mobile sources (vehicular traffic) as a result of the employee passenger vehicles (workers) and truck traffic associated with the operation of the warehouse.

Emissions from the mobile sources during operation of the Project were estimated in CalEEMod. The maximum daily trip rates, taken from the EIR's transportation impact analysis (TIA) (Appendix J), were 6,145 total non-passenger car equivalent trips per day, of which 4,561 trips would be passenger vehicles and 1,584 trips would be trucks, both of which were assumed 7 days per week. The passenger vehicle trip lengths were assumed to be CalEEMod default trip length of 27.3 miles for commercial-work trips (i.e., trips made by someone who is employed by the warehouse land use) and assumed to be 74.2% of primary trips. Heavy-duty truck trips were assumed to be 25.8% of primary trips, with a trip length of 31.4 miles based on a weighted average of average trip lengths of 2-, 3-, and 4+-axle trucks.

Neither MDAQMD nor the Town of Apple Valley have identified an appropriate trip length to assume for heavy-duty truck trips traveling to and from warehouse projects. Therefore, to identify an appropriate trip length assumption for heavy-duty truck trips, three different methods of estimation were evaluated: (1) Project-specific EMFAC-based estimate, (2) SCAQMD recommendations, and (3) estimates from a supplemental VMT analysis of a warehouse in an existing industrial area approximately 5 miles from the proposed Project site, which utilized the methodology from the 2022 Truck Volume Methodology and Validation white paper from Streetlight Data. For method 1, to determine an average operational truck trip distance, EMFAC data and the distance to the Port of Long Beach was examined. EMFAC data was queried for San Bernardino County for operational year 2026 for light-heavy duty (LHDT1 and LHDT2), medium heavy duty (MHDT), and heavy-heavy duty trucks (HHDT) for total VMT and number of vehicle trips. Based on the EMFAC data it is estimated that LHDTs average 2.95 miles per trip, MHDTs average 4.31 miles per trip and HHDTs average 9.78 miles per trip in San Bernardino County. LHDT1 and LHDT2s have a shorter EMFAC trip distance compared to MHDT, therefore, as a conservative assumption, LHDT1 and LHDT2 were assumed to have the same trip distance as MHDTs. The estimated trip distance from the Port of Long Beach to the Project was estimated to be 104 miles. Based on the EIR's transportation analysis, HHDT make up 66.2% of the total truck trips for the Project and LHDT1, LHDT2, and MHDTs make up 33.9% of truck trips. Conservatively assuming all HHDTs originate from the Port of Long Beach, then 50% of HHDT truck trips, arrival trips, are assumed

to be of a distance of 104 miles. The other 50% making up the HHDT departure from the Project are assumed to have trip distance equal to the average EMFAC San Bernardino County trip distance of 9.74 miles. To determine an average total truck distance for use in CalEEMod, HHDT trips are averaged with the other 33.9% of the trucks (and LHDT1, LHDT2, and MHDTs) to determine an overall weighted average truck trip distance, which equates to about 38 miles. See Table 4.2-6 for calculation details.

Table 4.2-6. Operational Truck Trip Distance

Vehicle	Percent of Trucks Trips (%)[1]	EMFAC Data			Trip Distance
		EMFAC Truck Classification	Countywide VMT	Countywide Vehicle Trips	VMT per Trip
2-3 Axle Trucks (Arriving and Departing)	33.9	LHDT1, LHDT2, and MHDT	731,360[2]	230,179[2]	4.31
4+ Axle Trucks (Arriving from Port)	33.1 (50% of total HHDT Trips[4])	HHDT	N/A	N/A	104[3]
4+ Axle Trucks (Departing)	33.1 (50% of total HHDT Trips[4])	HHDT	2,771,006	284,511	9.74
				Weighted Average (All Truck Trips)	**38.37**

Notes: VMT = vehicle miles traveled; LHDT = light-heavy duty; MHDT = medium-heavy duty; HHDT = heavy-heavy duty.

1 Based on Project traffic impact analysis, Appendix J.

2 LHDT1, LHDT2, and MHDT conservatively based on EMFAC VMT and Trip data for MHDT.

3 Based on the distance from the Project site to the Port of Long Beach.

4 Percent of truck trips represents arrival and departure trips, therefore 50% of trips (arrival) conservatively assumed to originate at the Port of Long Beach. 50% of trips assumed to depart the Project facility and estimated truck trip distance is based on EMFAC countywide average HHDT truck VMT per trip. Percentages are rounded up to the nearest tenth.

For method 2, the truck trip lengths were based on the SCAQMD recommendation of 40 miles and assumed to be 100% of primary trips.[6] For method 3, truck trip lengths were based on the weighted average trip length of 62.8 miles, which accounted for MDT and HDT traffic in the area along I-15, in an industrial area north of Apple Valley that lies several miles north of the Project site. While method 1 provides a tailored trip length estimate based on the Project's location and the reasonably anticipated origin and destination of operational truck trips and goods movement, and method 2 yields a higher trip length than method 1, method 3 is conservatively applied in this analysis to estimate mobile source emissions, as it yields a higher trip length than either alternative method, and utilizes a dataset that is local to the Project site.

Vehicle emissions occur during startup, operation (running), and idling, as well as from evaporative losses when the engines are resting. The emissions factors for trucks and passenger vehicles were determined using CalEEMod.

Project truck idling would be limited to 5 minutes in accordance with CARB's adopted Airborne Toxic Control Measure; however, for modeling purposes, it was conservatively assumed that the trucks would idle for a total of

6 The average trip length for heavy-duty trucks were based on implementation of the Facility-Based Mobile Source Measures adopted in the SCAQMD's 2016 AQMP. SCAQMD's "Draft Truck Emission Rate Calculations" assumed a heavy-heavy-duty truck Therefore trip length of 39.9 miles (SCAQMD 2021).

15 minutes: idling that occurs while the trucks are waiting to pull up to the loading dock, at the loading dock, and prior to entering and exiting the site.

Energy Source Emissions

As represented in CalEEMod, energy sources include emissions associated with building electricity and natural gas usage. Electricity use would contribute indirectly to criteria air pollutant emissions; however, the emissions from electricity use are only quantified for greenhouse gas emissions in CalEEMod, since criteria pollutant emissions would occur at the site of power plants, which are not on the Project site. However, natural gas combustion would occur at the Project site itself, in association with equipment that uses natural gas. The emissions associated with natural gas use were calculated using CalEEMod default parameters, which are reflective of the 2019 Title 24 standards to the extent CEC accounted for them in the underlying Commercial Forecast assumed in CalEEMod. Using CalEEMod default values are conservative as the Project would be required to comply with the more stringent 2022 Title 24 standards, which became effective January 1, 2023.

Off-Road Equipment

The most common type of cargo handling equipment are forklifts, pallet jacks, and yard trucks, which are designed for moving cargo containers. Yard trucks are also known as yard goats, utility tractors, hustlers, yard hostlers, and yard tractors. For this particular project, based on the maximum square footage of building space permitted by the Project, on-site modeled operational equipment includes a total of 308 electric forklifts and 3 diesel-fueled yard trucks operating at 24 hours a day for 365 days of the year. See Appendix B-1 for detailed calculations.

Stationary Sources (Emergency Generators)

The Project would operate one diesel-fueled 300-horsepower (hp) fire pump for a maximum of 50 hours per year for routine testing and maintenance.

Health Risk Assessments

Construction Health Risk Assessment

An HRA was performed to evaluate potential health risk associated with construction of the Project. The following discussion summarizes the dispersion modeling and HRA methodology; supporting construction HRA documentation, including detailed assumptions, is presented in Appendix B-2.

For risk assessment purposes, PM_{10} in diesel exhaust is considered DPM, originating mainly from off-road equipment operating at a defined location for a given length of time at a given distance from sensitive receptors. Less-intensive, more-dispersed emissions result from on road vehicle exhaust (e.g., heavy-duty diesel trucks).

The air dispersion modeling methodology was based on MDAQMD's generally accepted modeling practices (MDAQMD 2020c). Air dispersion modeling was performed using the EPA's American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD) Version 22112 modeling system (computer software) with the Lakes Environmental Software implementation/user interface, AERMOD View Version 11.2.0. The HRA followed the Office of Environmental Health Hazard Assessment (OEHHA) 2015 guidelines (OEHHA 2015) and MDAQMD guidance to calculate the health risk impacts at all proximate receptors as further discussed below. The dispersion modeling included the use of standard regulatory default options. AERMOD parameters were

selected consistent with the MDAQMD and EPA guidance and identified as representative of the Project site and Project activities. Principal parameters of this modeling are presented in Table 4.2-7.

Table 4.2-7. American Meteorological Society/Environmental Protection Agency Regulatory Model Principal Parameters

Parameter	Details
Meteorological Data	AERMOD-specific meteorological data for the Barstow-Daggett Airport air monitoring station (KDAG) was used for the dispersion modeling based on the recommendation of the MDAQMD. A meteorological data set from 2015 through 2020 was obtained from the CARB in a preprocessed format suitable for use in AERMOD.
Urban versus Rural Option	The rural dispersion option was selected due to the undeveloped nature of the Project area.
Terrain Characteristics	Digital elevation data were imported into AERMOD and elevations were assigned to receptors and emission sources, as necessary. Digital elevation data were obtained through the AERMOD View in the U.S. Geological Survey's National Elevation Dataset format with a resolution of 1 arc-second resolution.
Source Release Characterizations	Air dispersion modeling of DPM emissions was conducted assuming the off-road equipment and trucks would operate in accordance with the modeling scenario estimated in CalEEMod (Appendix B-1), based on the best information available at the time of analysis: ▪ Off-road equipment and diesel trucks were modeled as a line of adjacent volume sources across the Project site with a release height of 5 meters, a plume height of 10 meters, and plume width of 10 meters.
Receptors	Discrete receptors were placed at the nearest receptor locations in all directions to the Project site.

Notes: AERMOD = American Meteorological Society/Environmental Protection Agency Regulatory Model; MDAQMD = Mojave Desert Air Quality Management District; CARB = California Air Resources Board; DPM = diesel particular matter; CalEEMod = California Emissions Estimator Model.
See Appendix B-2.

The health risk calculations were performed using the Hotspots Analysis and Reporting Program Version 2 (HARP2) Air Dispersion and Risk Tool (ADMRT, Version 22118). AERMOD was run with all sources emitting unit emissions (1 gram per second) to obtain the necessary input values for HARP2. The line of volume sources was partitioned evenly based on the 1 gram per second emission rate. The ground-level concentration plot files were then used to estimate the long-term cancer health risk to an individual, and the non-cancer chronic health indices. Notably, there is no reference exposure level for acute health impacts from DPM, and, thus, acute risk was not evaluated.

Operational Heath Risk Assessment

Emissions from the operation of the Project include truck trips, truck idling emissions, off-road diesel- and CNG-fueled equipment, and routine testing and maintenance of the diesel fire pump. Truck idling would be limited to 5 minutes in accordance with CARB's adopted Airborne Toxic Control Measure; however, truck idling was conservatively assumed to idle for 15 minutes.[7] Therefore, the analysis conservatively overestimates DPM emissions from idling. All deliveries would occur Monday through Sunday.

[7] Although the Project is required to comply with CARB's idling limit of 5 minutes, on-site idling emissions was estimated for 15 minutes of truck idling, which would take into account on-site idling while the trucks are waiting to pull up to the loading dock, idling at the loading dock, and idling during check-in and check-out.

Dudek evaluated the Project's potential cancer and noncancer health impacts using exposure periods appropriate to evaluate long-term emission increases (third trimester of pregnancy to 30 years). Emissions dispersion of DPM and gaseous TACs from CNG were modeled using AERMOD, then cancer risk and noncancer health impacts subsequently using the CARB HARP2. The health risk results were then compared to MDAQMD thresholds to assess Project significance. Principal parameters of this modeling are presented in Table 4.2-8.

Table 4.2-8. Operational Health Risk Assessment American Meteorological Society/U.S. Environmental Protection Agency Regulatory Model Operational Principal Parameters

Parameter	Details
Meteorological Data	AERMOD-specific meteorological data for the Barstow-Daggett Airport air monitoring station (KDAG) was used for the dispersion modeling based on the recommendation of the MDAQMD. A meteorological data set from 2015 through 2020 was obtained from the CARB in a preprocessed format suitable for use in AERMOD.
Urban versus Rural Option	The rural dispersion option was selected due to the undeveloped nature of the Project area.
Terrain Characteristics	Digital elevation data were imported into AERMOD and elevations were assigned to receptors and emission sources, as necessary. Digital elevation data were obtained through the AERMOD View in the U.S. Geological Survey's National Elevation Dataset format with a resolution of 1 arc-second resolution.
Source Release Characterizations	The following operational source modeling parameters were based on the best information available at the time of analysis: ▪ Diesel truck travel was modeled as a line of adjacent volume sources to the west (65%), north (15%), and south (20%) of the Project with a release height of 3.4 meters, a plume height of 6.8 meters, and plume width of 9.7 meters. ▪ Truck idling was modeled as a line of adjacent volume sources along each side of the warehouse building with loading docks, with a release height of 3.4 meters, a plume height of 6.8 meters, and plume width of 3.7 meters. ▪ Cargo handling equipment were modeled as a line of adjacent volume sources along each side of the warehouse building with loading docks, with a release height of 3.4 meters, a plume height of 6.8 meters, and plume width of 9.7 meters. ▪ The fire pump was modeled as a point source at the southeast corner of the building. The 300-hp fire pump was assumed to have a vertical stack with a height of 2.50 meters, inside stack diameter of 12.19 centimeters, gas exhaust temperature of 931 degrees Fahrenheit, and gas exhaust of 51.79 cubic meters per minute.
Receptors	Discrete receptors were placed at the nearest receptor locations to the Project site and haul routes.

Source: See Appendix B-2.
Note: AERMOD = American Meteorological Society/Environmental Protection Agency Regulatory Model; MDAQMD = Mojave Desert Air Quality Management District; CARB = California Air Resources Board.

4.2.4 Impacts Analysis

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

Significant and Unavoidable Impact. The Federal Particulate Matter Attainment Plan and Ozone Attainment Plan for the Mojave Desert set forth a comprehensive set of programs that will lead the MDAB into compliance with federal and state air quality standards. The control measures and related emission reduction estimates within the Federal Particulate Matter Attainment Plan and Ozone Attainment Plan are based upon emissions projections for a

future development scenario derived from land use, population, and employment characteristics defined in consultation with local governments. A project is non-conforming with an air quality plan if it conflicts with or delays implementation of any applicable attainment or maintenance plan. A project is conforming if it complies with all applicable MDAQMD rules and regulations, complies with all proposed control measures that are not yet adopted from the applicable plan(s), and is consistent with the growth forecasts in the applicable plan(s) (or is directly included in the applicable plan). Zoning changes, specific plans, general plan amendments and similar land use plan changes that do not increase dwelling unit density, do not increase vehicle trips, and do not increase vehicle-miles traveled (VMT) are also deemed to comply with the applicable air quality plan (MDAQMD 2020a).

The Project would be required to comply with all applicable MDAQMD Rules and Regulations, including, but not limited to Rules 401 (Visibile Emissions), 402 (Nuisance), and 403 (Fugitive Dust Control for the Mojave Desert Planning Area). According to the Town's General Plan, the land use designation and zoning for the Project site is Specific Plan (SP), referring to its presence within the boundaries of the North Apple Valley Industrial Specific Plan. Since the Project site is within this overlay, the proposed warehouse facility is an allowable use under the existing general plan land use designation.

As discussed below, Project construction-source emissions would not exceed applicable MDAQMD regional thresholds after the implementation of Mitigation Measures (MM) AQ-1. However, Project operational-source air pollutant emissions would result in exceedances of regional thresholds for emissions of NO_x and PM_{10}. As such, NO_x and PM_{10} operational emissions are considered significant, and the Project would have the potential to increase the frequency or severity of a violation in the federal or state ambient air quality for on-going Project operations. The health effects of criteria air pollutants are discussed in depth under the next impact criterion.

Based on the preceding considerations, the Project would conform to local land use plans and would comply with all applicable MDAQMD Rules and Regulations. However, Project operational-source emissions have the potential to increase the frequency or severity of a violation in the federal or state ambient air quality standards. On this basis, the Project is considered to potentially conflict with the Federal Particulate Matter Attainment Plan and Ozone Attainment Plan for the MDAB. On this basis, the Project is considered to potentially conflict with the Federal Particulate Matter Attainment Plan and Ozone Attainment Plan for the MDAB. Therefore, impacts associated with conflicting with the MDAQMD would be significant and unavoidable.

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?

Significant and Unavoidable Impact. Construction and operation of the Project would result in emissions of criteria air pollutants from mobile, area, and stationary sources, which may cause exceedances of federal and state AAQS or contribute to existing nonattainment of AAQS. The following discussion identifies potential short-term construction and long-term operational impacts that would result from implementation of the Project.

The nonattainment status of regional pollutants is a result of past and present development, and the MDAQMD develops and implements plans for future attainment of AAQS. Although the area of the MDAB where the Project is located is currently designated a nonattainment area for federal and state O_3 standards and federal and state PM_{10} standards, the MDAB has experienced a substantial reduction in maximum 8-hour concentrations of O_3 over the past 30 years, as well as reductions in PM_{10} over time, as described in the respective MDAQMD O_3 and PM_{10} attainment plans. CEQA thresholds are established at levels that the air basin can accommodate without affecting the attainment date for the AAQS. Based on these considerations, Project-level thresholds of significance for criteria

pollutants are relevant in the determination of whether a project's individual emissions would have a cumulatively significant impact on air quality.

Short-Term Construction Impacts

Construction of the Project would result in the temporary addition of pollutants to the local airshed caused by on-site sources (i.e., off-road construction equipment, soil disturbance, and VOC off-gassing from architectural coatings) and off-site sources (i.e., on-road haul trucks, vendor trucks, and worker vehicle trips). Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and for dust, the prevailing weather conditions. Therefore, such emission levels can only be approximately estimated with a corresponding uncertainty in precise ambient air quality impacts.

As discussed in the Methodology – Construction subsection of Section 4.2.3, Thresholds of Significance, criteria air pollutant emissions associated with temporary construction activity were quantified using CalEEMod. CalEEMod calculates maximum daily emissions for summer and winter periods. The estimated maximum daily construction emissions without mitigation are summarized in Table 4.2-9. Detailed construction model outputs are presented in Appendix B-1.

Table 4.2-9. Estimated Maximum Daily Construction Criteria Air Pollutant Emissions - Unmitigated

Year	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	Pounds Per Day					
Summer						
2024	3.75	36.25	34.60	0.05	9.55	5.48
2025	9.50	34.98	137.40	0.16	23.72	6.24
2026	207.20	2.10	22.90	0.02	3.71	0.89
Winter						
2024	3.74	36.28	34.08	0.06	9.55	5.48
2025	9.03	36.64	99.20	0.16	23.72	6.24
2026	207.04	5.36	15.63	0.01	3.71	0.89
Maximum Daily Emissions	**207.04**	**36.64**	**137.40**	**0.16**	**23.72**	**6.24**
MDAQMD Threshold	*137*	*137*	*548*	*137*	*82*	*65*
Threshold Exceeded?	**Yes**	**No**	**No**	**No**	**No**	**No**

Source: Appendix B-1.
Notes: VOC = volatile organic compound; NOx = oxides of nitrogen; CO = carbon monoxide; SOx = sulfur oxides; PM10 = coarse particulate matter; PM2.5 = fine particulate matter; MDAQMD = Mojave Desert Air Quality Management District.

As depicted in Table 4.2-9, regional construction emissions would not exceed the applicable MDAQMD thresholds of significance for all criteria pollutants except for VOCs, which exceed the MDAQMD's criteria pollutant threshold for maximum daily emissions. This impact would be potentially significant without mitigation. The primary cause of VOC emissions during construction is paint or other coatings during the architectural coating phase. To limit VOC emissions from architectural coatings during construction, MM-AQ-1 will be implemented to reduce the VOC impacts, which requires that the Project shall utilize "Super-Compliant" low VOC paints, which have been reformulated to exceed the regulatory VOC limits put forth by MDAQMD's Rule 1113. MM-AQ-1 includes

requirements for low VOC paints (less than 10 g/L VOC content) to be used in architectural coatings, which reduces the maximum daily levels of VOCs to below the threshold of significance, as shown in Table 4.2-10.

Table 4.2-10. Estimated Maximum Daily Construction Criteria Air Pollutant Emissions - Mitigated

Year	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	Pounds Per Day					
Summer						
2024	4.46	3.75	34.60	0.05	9.55	5.48
2025	9.50	34.98	137.40	0.16	23.72	6.24
2026	47.89	2.10	22.90	0.02	3.71	0.89
Winter						
2024	4.45	36.28	34.08	0.06	9.55	5.48
2025	8.03	36.64	99.20	0.16	23.72	6.24
2026	47.74	5.36	15.63	0.01	3.71	0.89
Maximum Daily Emissions	**47.89**	**36.64**	**137.40**	**0.16**	**23.72**	**6.24**
MDAQMD Threshold	*137*	*137*	*548*	*137*	*82*	*65*
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Appendix B-1.
Notes: VOC = volatile organic compound; NOx = oxides of nitrogen; CO = carbon monoxide; SOx = sulfur oxides; PM10 = coarse particulate matter; PM2.5 = fine particulate matter; MDAQMD = Mojave Desert Air Quality Management District.
Includes compliance with the construction measures specified in MM-AQ-1.

As Table 4.2-10 shows, implementing MM-AQ-1 with the low VOC architectural coating requirement would bring the maximum daily VOC emissions during construction below the threshold required by MDAQMD. VOC emissions would no longer be in exceedance of the threshold, and the impacts of criteria pollutant emissions associated with the Project's construction would be less than significant.

Long-Term Operational Impacts

Operation of the Project would generate criteria pollutant emissions from area sources (consumer products, architectural coatings, landscaping equipment), energy sources (natural gas combustion for space and water heating), mobile sources (vehicular traffic), off-road equipment (forklifts and yard trucks), and stationary sources (emergency diesel generator testing and maintenance). Table 4.2-11 summarizes the unmitigated maximum daily operational emissions associated with the Project. Detailed operational model outputs are presented in Appendix B-1.

Table 4.2-11. Estimated Maximum Daily Operation Criteria Air Pollutant Emissions - Unmitigated

Emissions Source	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	Pounds per Day					
Summer						
Mobile	20.63	278.57	393.58	3.55	178.31	50.44
Area	57.78	0.71	84.06	0.01	0.15	0.11

Table 4.2-11. Estimated Maximum Daily Operation Criteria Air Pollutant Emissions - Unmitigated

Emissions Source	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	Pounds per Day					
Energy	0.73	13.30	11.17	0.08	1.107	1.107
Offroad Equipment	1.2	8.94	7.70	0.03	0.34	0.31
Total Daily Summer Emissions	**80.33**	**301.52**	**496.51**	**3.66**	**179.81**	**51.87**
Winter						
Mobile	18.98	294.00	278.68	3.44	178.31	50.44
Area	43.98	—	—	—	—	—
Energy	0.73	13.30	11.17	0.08	1.107	1.107
Offroad Equipment	1.20	8.94	7.70	0.03	0.34	0.31
Total Daily Winter Emissions	**64.90**	**316.24**	**297.54**	**3.55**	**179.66**	**51.76**
Maximum Daily Emissions	**80.33**	**316.24**	**496.51**	**3.66**	**189.81**	**51.87**
MDAQMD Threshold	*137*	*137*	*548*	*137*	*82*	*65*
Threshold Exceeded?	**No**	**Yes**	**No**	**No**	**Yes**	**No**

Source: See Appendix B-1 for complete results.
Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; MDAQMD = Mojave Desert Air Quality Management District.

As shown in Table 4.2-11, the Project would exceed the numerical thresholds of significance established by the MDAQMD for emissions of NO_x, and PM_{10}. This impact would be potentially significant without mitigation.

Mitigation measures are required to minimize operational-related air quality impacts. As depicted in Table 4.2-11 above, most criteria air pollutants associated with the Project are generated by off-road cargo handling equipment (diesel and CNG fueled) and on-road vehicles. MM-AQ-2 includes the requirement for all off-road cargo handling equipment to be electric, which would reduce the long-term criteria air pollutant emissions substantially. In addition, neither the Project Applicant nor the Town of Apple Valley can substantively or materially affect reductions in Project on-road mobile source emissions beyond what is already required by regulation. Table 4.2-12 summarizes the mitigated maximum daily operational emissions associated with the Project. Detailed operational model outputs are presented in Appendix B-1.

Table 4.2-12. Estimated Maximum Daily Operation Criteria Air Pollutant Emissions - Mitigated

Emissions Source	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	Pounds per Day					
Summer						
Mobile	20.63	278.57	393.58	3.55	178.31	50.44
Area	57.78	0.71	84.06	0.01	0.15	0.11
Energy	0.73	13.30	11.17	0.08	1.01	1.01
Offroad Equipment	0.00	0.00	0.00	0.00	0.00	0.00
Total Daily Summer Emissions	**79.14**	**292.58**	**488.81**	**3.63**	**179.47**	**51.56**

Table 4.2-12. Estimated Maximum Daily Operation Criteria Air Pollutant Emissions - Mitigated

Emissions Source	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	Pounds per Day					
Winter						
Mobile	18.98	294.00	278.68	3.44	178.31	50.44
Area	43.98	—	—	—	—	—
Energy	0.73	13.30	11.17	0.08	1.01	1.01
Offroad Equipment	0.00	0.00	0.00	0.00	0.00	0.00
Total Daily Winter Emissions	**63.69**	**307.30**	**289.85**	**3.52**	**179.32**	**51.45**
Maximum Daily Emissions	**79.14**	**307.30**	**488.81**	**3.63**	**179.47**	**51.56**
MDAQMD Threshold	*137*	*137*	*548*	*137*	*82*	*65*
Threshold Exceeded?	**No**	**Yes**	**No**	**No**	**Yes**	**No**

Source: See Appendix B-1 for complete results.
Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; MDAQMD = Mojave Desert Air Quality Management District.
Includes implementation of Mitigation Measure (MM)-AQ-1.

After implementation of MM-AQ-2, the Project would still exceed the MDAQMD thresholds for NO_x and PM_{10}. No feasible mitigation measures beyond those already identified exist that would reduce these emissions to levels that are less than significant. Therefore, even with the incorporation of mitigation, long-term impacts associated with a cumulatively considerable net increase of criteria pollutants for which the Project region is non-attainment would be significant and unavoidable.

Health Effects of Criteria Air Pollutants

Construction of the Project would result in emissions that would not exceed the MDAQMD thresholds for criteria air pollutants, including VOCs generated during construction and CO from operations, after implementation of MM-AQ-1. Operation of the Project, however, would result in emissions that would exceed the MDAQMD thresholds for criteria air pollutants including NO_x and PM_{10}, even after implementation of MM-AQ-2.

As discussed in Section 4.2.1, Existing Conditions, under the heading Pollutants and Effects, health effects associated with O_3 include respiratory symptoms, worsening of lung disease leading to premature death, and damage to lung tissue. VOCs and NO_x are precursors to O_3, for which the MDAB is designated as nonattainment with respect to the NAAQS and CAAQS. The contribution of VOCs and NO_x to regional ambient O_3 concentrations is the result of complex photochemistry. The increases in O_3 concentrations in the MDAB due to O_3 precursor emissions tend to be found downwind of the source location because of the time required for the photochemical reactions to occur. Further, the potential for exacerbating excessive O_3 concentrations would also depend on the time of year that the VOC emissions would occur, because exceedances of the O_3 NAAQS and CAAQS tend to occur between April and October when solar radiation is highest. Due to the lack of quantitative methods to assess this complex photochemistry, the holistic effect of a single project's emissions of O_3 precursors is speculative. That being said, because the Project would exceed the MDAQMD NO_x threshold during Project operations, the Project could contribute to health effects associated with O_3.

Health effects associated with NO_x and NO_2 (which is a constituent of NO_x) include lung irritation and enhanced allergic responses (see Section 4.2.1). Since the mitigated Project would not result in NO_x emissions that would

exceed the MDAQMD mass daily thresholds and because the MDAB is a designated attainment area for NO_2 (and NO_2 is a constituent of NO_x) and the existing NO_2 concentrations in the area are well below the NAAQS and CAAQS standards,[8] it is not anticipated that the Project would cause an exceedance of the NAAQS and CAAQS for NO_2 or result in potential health effects associated with NO_2 and NO_x. However, because the Project would exceed the MDAQMD NO_x threshold during Project operations, the Project could contribute to health effects associated with NO_x and NO_2.

Health effects associated with CO include chest pain in patients with heart disease, headache, light-headedness, and reduced mental alertness (see Section 4.2.1). CO tends to be a localized impact associated with congested intersections. The potential for CO hotspots is discussed under the subsequent impact criterion below and determined to be less than significant. Thus, the Project's CO emissions would not contribute to significant health effects associated with CO.

Health effects associated with PM_{10} include premature death and hospitalization, primarily for worsening of respiratory disease (see Section 4.2.1). Operation of the Project would exceed the MDAQMD threshold for PM_{10}. As such, the Project would potentially contribute to exceedances of the NAAQS and CAAQS for particulate matter and obstruct the MDAB from coming into attainment for these pollutants. Because the Project has the potential to contribute substantial particulate matter during operation, the Project could result in associated health effects.

The California Supreme Court's Sierra Club v. County of Fresno (2018) 6 Cal. 5th 502 decision (referred to herein as the Friant Ranch decision; issued on December 24, 2018), addresses the need to correlate mass emission values for criteria air pollutants to specific health consequences, and contains the following direction from the California Supreme Court: "The Environmental Impact Report (EIR) must provide an adequate analysis to inform the public how its bare numbers translate to create potential adverse impacts or it must explain what the agency *does* know and why, given existing scientific constraints, it cannot translate potential health impacts further" (italics original). Currently, MDAQMD, CARB, and EPA have not approved a quantitative method to reliably, meaningfully, and consistently translate the mass emission estimates for the criteria air pollutants resulting from the Project to specific health effects. In addition, there are numerous scientific and technological complexities associated with correlating criteria air pollutant emissions from an individual project to specific health effects or potential additional nonattainment days.

In connection with the judicial proceedings culminating in issuance of the Friant Ranch decision, the SCAQMD and the San Joaquin Valley Air Pollution Control District (SJVAPCD) filed amicus briefs attesting to the extreme difficulty of correlating an individual project's criteria air pollutant emissions to specific health impacts. Both the SJVAPCD and the SCAQMD have among the most sophisticated air quality modeling and health impact evaluation capabilities of the air districts in the state. The key, relevant points from the SCAQMD and SJVAPCD briefs are summarized herein.

In requiring a health impact type of analysis for criteria air pollutants, it is important to understand how O_3 and PM is formed, dispersed, and regulated. The formation of O_3 and PM in the atmosphere, as secondary pollutants,[9] involves complex chemical and physical interactions of multiple pollutants from natural and anthropogenic sources. The O_3 reaction is self-perpetuating (or catalytic) in the presence of sunlight because NO_2 is photochemically reformed from nitric oxide (NO). In this way, O_3 is controlled by both NO_x and VOC emissions (NRC 2005). The complexity of these interacting cycles of pollutants means that incremental decreases in one emission may not result in proportional decreases in O_3 (NRC 2005). Although these reactions and interactions are well understood,

[8] See Table 4.2-2, which shows that ambient concentrations of NO_2 at the Victorville monitoring station have not exceeded the NAAQS or CAAQS between 2019 and 2021.

[9] Air pollutants formed through chemical reactions in the atmosphere are referred to as secondary pollutants.

variability in emission source operations and meteorology creates uncertainty in the modeled O_3 concentrations to which downwind populations may be exposed (NRC 2005). Once formed, O_3 can be transported long distances by wind and due to atmospheric transport, contributions of precursors from the surrounding region can also be important (EPA 2008). Because of the complexity of O_3 formation, a specific tonnage of VOCs or NO_X emitted in a particular area does not equate to a particular concentration of O_3 in that area (SJVAPCD 2015). PM can be divided into two categories: directly emitted PM and secondary PM. Secondary PM, like O_3, is formed via complex chemical reactions in the atmosphere between precursor chemicals such as SO_x and NO_x (SJVAPCD 2015). Because of the complexity of secondary PM formation, including the potential to be transported long distances by wind, the tonnage of PM-forming precursor emissions in an area does not necessarily result in an equivalent concentration of secondary PM in that area (SJVAPCD 2015). This is especially true for individual projects, like the Project, where Project-generated criteria air pollutant emissions are not derived from a single "point source," but from construction equipment and mobile sources (passenger cars and trucks) driving to, from and around the Project site.

Another important technical nuance is that health effects from air pollutants are related to the concentration of the air pollutant that an individual is exposed to, not necessarily the individual mass quantity of emissions associated with an individual project. For example, health effects from O_3 are correlated with increases in the ambient level of O_3 in the air a person breathes (SCAQMD 2015). However, it takes a large amount of additional precursor emissions to cause a modeled increase in ambient O_3 levels over an entire region (SCAQMD 2015). The lack of link between the tonnage of precursor pollutants and the concentration of O_3 and $PM_{2.5}$ formed is important because it is not necessarily the tonnage of precursor pollutants that causes human health effects; rather, it is the concentration of resulting O_3 that causes these effects (SJVAPCD 2015). Indeed, the ambient air quality standards, which are statutorily required to be set by EPA at levels that are requisite to protect the public health, are established as concentrations of O_3 and $PM_{2.5}$ and not as tonnages of their precursor pollutants (EPA 2018a). Because the ambient air quality standards are focused on achieving a particular concentration region-wide, the tools and plans for attaining the AAQS are regional in nature. For CEQA analyses, project-generated emissions are typically estimated in pounds per day or tons per year and compared to mass daily or annual emission thresholds. While CEQA thresholds are established at levels that the air basin can accommodate without affecting the attainment date for the AAQS, even if a project exceeds established CEQA significance thresholds, this does not mean that one can easily determine the concentration of O_3 or PM that will be created at or near the Project site on a particular day or month of the year, or what specific health impacts will occur (SJVAPCD 2015).

Regarding regional concentrations and air basin attainment, the SJVAPCD emphasized that attempting to identify a change in background pollutant concentrations that can be attributed to a single project, even one as large as the entire Friant Ranch Specific Plan, is a theoretical exercise. The SJVAPCD brief noted that it "would be extremely difficult to model the impact on NAAQS attainment that the emissions from the Friant Ranch project may have" (SJVAPCD 2015). The situation is further complicated by the fact that background concentrations of regional pollutants are not uniform either temporally or geographically throughout an air basin but are constantly fluctuating based upon meteorology and other environmental factors. SJVAPCD noted that the currently available modeling tools are equipped to model the impact of all emission sources in the San Joaquin Valley Air Basin on attainment (SJVAPCD 2015). The SJVAPCD brief then indicated that, "Running the photochemical grid model used for predicting O_3 attainment with the emissions solely from the Friant Ranch project (which equate to less than one-tenth of one percent of the total NO_x and VOC in the Valley) is not likely to yield valid information given the relative scale involved" (SJVAPCD 2015).

SCAQMD and SJVAPCD have indicated that it is not feasible to quantify project-level health impacts based on existing modeling (SCAQMD 2015; SJVAPCD 2015). Even if a metric could be calculated, it would not be reliable

because the models are equipped to model the impact of all emission sources in an air basin on attainment and would likely not yield valid information or a measurable increase in O_3 concentrations sufficient to accurately quantify O_3-related health impacts for an individual project.

Nonetheless, following the Supreme Court's Friant Ranch decision, some EIRs where estimated criteria air pollutant emissions exceeded applicable air district thresholds have included a quantitative analysis of potential project-generated health effects using a combination of a regional photochemical grid model (PGM)[10] and the EPA Benefits Mapping and Analysis Program (BenMAP or BenMAP–Community Edition [CE]).[11] The publicly available health impact assessments (HIAs) typically present results in terms of an increase in health incidences and/or the increase in background health incidence for various health outcomes resulting from a project's estimated increase in concentrations of O_3 and $PM_{2.5}$.[12] To date, the five publicly available HIAs reviewed (and discussed in detail in Appendix B-3) have concluded that the evaluated projects' health effects associated with the estimated project-generated increase in concentrations of O_3 and $PM_{2.5}$ represent a small increase in incidences and a very small percentage of the number of background incidences, indicating that these health impacts are negligible and potentially within the models' margin of error. It is also important to note that while the results of the five available HIAs conclude that project emissions do not result in a substantial increase in health incidences, the estimated emissions and assumed toxicity is also conservatively inputted into the HIA and thus, overestimate health incidences, particularly for $PM_{2.5}$.

As explained in the SJVAPCD brief and noted previously, running the PGM used for predicting O_3 attainment with the emissions solely from an individual project like the Friant Ranch project or the Project is not likely to yield valid information given the relative scale involved. The five examples reviewed support the SJVAPCD's brief contention that consistent, reliable, and meaningful results may not be provided by methods applied at this time. Accordingly, additional work in the industry and more importantly, air district participation, is needed to develop a more meaningful analysis to correlate Project-level mass criteria air pollutant emissions and health effects for decision makers and the public. Furthermore, at the time of writing, no HIA has concluded that health effects estimated using the PGM and BenMAP approach are substantial provided that the estimated Project-generated incidences represent a very small percentage of the number of background incidences, potentially within the models' margin of error.

In summary, operation of the Project could result in exceedances of the MDAQMD significance thresholds for NO_x and PM_{10}, even after mitigation, and the Project would potentially result in health effects associated with those pollutants. Because construction of the Project would not exceed any MDAQMD thresholds (after mitigation), and operation of the Project would not exceed the MDAQMD thresholds for VOC, CO, SO_x or $PM_{2.5}$, and because the

10 The first step in the publicly available HIAs includes running a regional PGM, such as the Community Multiscale Air Quality (CMAQ) model or the Comprehensive Air Quality Model with extensions (CAMx) to estimate the increase in concentrations of O_3 and $PM_{2.5}$ as a result of project-generated emissions of criteria and precursor pollutants. Air districts use photochemical air quality models for regional air quality planning. These photochemical models are large-scale air quality models that simulate the changes of pollutant concentrations in the atmosphere using a set of mathematical equations characterizing the chemical and physical processes in the atmosphere (EPA 2017).

11 After estimating the increase in concentrations of O_3 and $PM_{2.5}$, the second step in the five examples includes use of BenMAP or BenMAP-CE to estimate the resulting associated health effects. BenMAP estimates the number of health incidences resulting from changes in air pollution concentrations (EPA 2018b). The health impact function in BenMAP-CE incorporates four key sources of data: (i) modeled or monitored air quality changes, (ii) population, (iii) baseline incidence rates, and (iv) an effect estimate. All of the five example HIAs focused on O_3 and $PM_{2.5}$.

12 The following CEQA documents included a quantitative HIA to address Friant Ranch: (1) California State University Dominguez Hills 2018 Campus Master Plan EIR (CSUDH 2019), (2) March Joint Powers Association K4 Warehouse and Cactus Channel Improvements EIR (March JPA 2019), (3) Mineta San Jose Airport Amendment to the Airport Master Plan EIR (City of San Jose 2019), (4) City of Inglewood Basketball and Entertainment Center Project EIR (City of Inglewood 2019), and (5) San Diego State University Mission Valley Campus Master Plan EIR (SDSU 2019).

MDAQMD thresholds are based on levels that the MDAB can accommodate without affecting the attainment date for the AAQS and the AAQS are established to protect public health and welfare, the Project is not anticipated to result in health effects associated with CO, SO_x or $PM_{2.5}$.

Notably, there are numerous scientific and technological complexities associated with correlating criteria air pollutant emissions from an individual project to specific health effects or potential additional nonattainment days, and methods available to quantitatively evaluate health effects may not be appropriate to apply to emissions associated with the Project, which cannot be estimated with a high-level of accuracy. Notwithstanding, because operation of the Project could result in exceedances of MDAQMD significance thresholds for NO_x and PM_{10}, even after implementation of MM-AQ-2, the potential health effects associated with these criteria air pollutants are conservatively considered significant and unavoidable.

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

Less than Significant. The potential impact of Project-generated air pollutant emissions at sensitive receptors has been considered. Sensitive receptors can include uses such as long-term health care facilities, rehabilitation centers, and retirement homes. Residences, schools, playgrounds, child-care centers, and athletic facilities can also be considered as sensitive receptors. The nearest sensitive receptor to the Project site is a residence approximately 4,700 feet to the southwest.

Criteria Air Pollutant Emissions and Associated Pollutant Concentrations

As discussed above in Threshold B, because operation of the Project could result in exceedances of the MDAQMD significance thresholds for NO_x and PM_{10}, the Project would potentially result in health effects associated with those pollutants. Because construction of the Project would not exceed any MDAQMD thresholds (after implementation of MM-AQ-1) and operation of the Project would not exceed the MDAQMD thresholds for VOC, CO, SO_x or $PM_{2.5}$ (after implementation of MM-AQ-2), and because the MDAQMD thresholds are based on levels that the MDAB can accommodate without affecting the attainment date for the AAQS and the AAQS are established to protect public health and welfare, the Project is not anticipated to result in health effects associated with CO, SO_x or $PM_{2.5}$.

Notably, there are numerous scientific and technological complexities associated with correlating criteria air pollutant emissions from an individual project to specific health effects or potential additional nonattainment days, and methods available to quantitatively evaluate health effects may not be appropriate to apply to emissions associated with the Project, which cannot be estimated with a high-level of accuracy. Notwithstanding, because operation of the Project could result in exceedances of MDAQMD significance thresholds for NO_x and PM_{10}, even after implementation of MM-AQ-2, the potential health effects associated with these criteria air pollutants are conservatively considered significant and unavoidable.

Local Carbon Monoxide Concentrations

Mobile source impacts occur on two scales of motion. Regionally, Project-related travel would add to regional trip generation and increase VMT within the local airshed and the MDAB. Locally, Project-generated traffic would be added to the roadway system near the Project site. If such traffic occurs during periods of poor atmospheric ventilation, is composed of a large number of vehicles “cold-started” and operating at pollution-inefficient speeds and operates on roadways already crowded with non-Project traffic, there is a potential for the formation of microscale CO hotspots in the area immediately around points of congested traffic. However, because of continued

improvement in vehicular emissions at a rate faster than the rate of vehicle growth and/or congestion, the potential for CO hotspots in the MDAB is steadily decreasing.

The MDAQMD thresholds of significance for local CO emissions is the 1-hour and 8-hour CAAQS of 20 ppm and 9 ppm, respectively. By definition, these represent levels that are protective of public health. As noted previously, the MDAB is currently designated attainment for both state and national CO ambient air quality standards, and the Town of Apple Valley typically experiences low background CO concentrations.

As described in Section 4.2.3, to verify that the Project would not cause or contribute to a violation of the CO standard, a screening evaluation was conducted comparing the highest hourly traffic volumes at any studied intersection in proximity to the Project site to the 100,000 vehicles per day criterion from the SCAQMD Air Quality Management Plan (SCAQMD 2003). The highest average daily trips on a segment of road would be approximately 30,000 daily trips on Stoddard Wells Road, east of I-15 NB Ramps - Outer I-15 intersection (Appendix J), which would be substantially less than the 100,000 vehicles per day screening criterion applied. Therefore, impacts associated with CO hotspots would be less than significant.

Toxic Air Contaminant Exposure

Construction Health Risk

As discussed in Section 4.2.3, a construction HRA was performed to estimate the Maximum Individual Cancer Risk and the Chronic Hazard Index for residential receptors as a result of Project construction. Results of the construction HRA are presented in Table 4.2-13. Detailed operational model outputs are presented in Appendix B-2.

Table 4.2-13. Construction Health Risk Assessment Results

Impact Parameter	Units	Project Impact	CEQA Threshold	Level of Significance
Maximum Individual Cancer Risk – Residential	Per Million	0.14	10	Less than Significant
Chronic Hazard Index – Residential	Index Value	0.0001	1.0	Less than Significant

Source: Appendix B-2.
Note: CEQA = California Environmental Quality Act.

As shown in Table 4.2-13, Project construction activities would result in a Maximum Individual Cancer Risk of 0.14 in 1 million at the nearest residence, which is below the significance threshold of 10 in 1 million. Project construction would result in a Chronic Hazard Index of 0.0001, which is below the 1.0 significance threshold. The Project construction TAC health risk impacts would be less than significant without mitigation.

Operational Health Risk

As discussed in Section 4.2.3, an HRA was performed to estimate the Maximum Individual Cancer Risk and Chronic Hazard Index for residential receptors associated with Project operations. Results of the operational HRA are presented in Table 4.2-14. Detailed operational model outputs are presented in Appendix B-2.

Table 4.2-14. Operational Health Risk Assessment Results - Unmitigated

Impact Parameter	Units	Impact Level	CEQA Threshold	Level of Significance
Maximum Individual Cancer Risk – Residential	Per Million	5.6	10	Less than Significant
Chronic Hazard Index – Residential	Index Value	0.0055	1.0	Less than Significant

Source: Appendix B-2.
Notes: CEQA = California Environmental Quality Act

As shown in Table 4.2-14, the TAC emissions from operation of the Project would result in a Maximum Individual Cancer Risk of 5.6 in 1 million and a Chronic Hazard Index of 0.0055, which are below the significance thresholds. The Project operational TAC health risk impacts would be less than significant without mitigation.

Mitigation measures are required to minimize operational-related air quality impacts. MM-AQ-2 would require all off-road cargo handling and landscaping equipment to be zero-emission. MM-AQ-2 results in such drastic reductions in cancer risk and Chronic Hazard risk because it completely removes the largest contributors to localized health risk (e.g., diesel and CNG cargo handling equipment) and replaces them with zero-emission equipment. This results in the elimination of all DPM, as well as TACs produced through CNG combustion, such as benzene and formaldehyde, associated with cargo handling equipment. Table 4.2-15 summarizes the mitigated operational health risk levels associated with the Project.

Table 4.2-15. Operational Health Risk Assessment Results - Mitigated

Impact Parameter	Units	Impact Level	CEQA Threshold	Level of Significance
Maximum Individual Cancer Risk – Residential	Per Million	0.89	10	Less than Significant
Chronic Hazard Index – Residential	Index Value	0.0009	1.0	Less than Significant

Source: Appendix B-2.
Notes: CEQA = California Environmental Quality Act

As shown in Table 4.2-15, mitigated Project operational activities would result in a Maximum Individual Cancer Risk of 0.89 in 1 million at the nearest residence, which is less than the significance threshold of 10 in 1 million. Mitigated Project operations would result in a Chronic Hazard Index of 0.0009, which is below the 1.0 significance threshold. Mitigation measures would further reduce Project operational TAC health risk impacts, which would also be less than significant after mitigation.

Valley Fever

As discussed in Section 4.2.1 under the subsection Valley Fever, Valley Fever is not highly endemic to San Bernardino County with an incident rate of 1.8 cases per 100,000 people (CDPH 2022). In contrast, in 2016 the statewide annual incident rate was 13.7 per 100,000 people. The California counties considered highly endemic for Valley Fever include Kern (251.7 per 100,000), Kings (157.3 per 100,000), San Luis Obispo (82.8 per 100,000), Fresno (60.8 per 100,000), Tulare (45.3 per 100,000), Madera (31.5 per 100,000), and San Joaquin (25.3 per 100,000), and accounted for 70% of the reported cases in 2016 (CDPH 2022).

Even if present at the site, construction activities may not result in increased incidence of Valley Fever. Propagation of Valley Fever is dependent on climatic conditions, with the potential for growth and surface exposure highest following early seasonal rains and long dry spells. Valley Fever spores can be released when filaments are disturbed by earth-moving activities, although receptors must be exposed to and inhale the spores to be at increased risk of developing Valley Fever. Moreover, exposure to Valley Fever does not guarantee that an individual will become ill—approximately 60% of people exposed to the fungal spores are asymptomatic and show no signs of an infection (USGS 2000).

To reduce fugitive dust from the Project and minimize adverse air quality impacts, the Project would employ dust control measures in accordance with the MDAQMD Rules 401 and 403.2, which limit the amount of fugitive dust generated during construction. These requirements are consistent with California Department of Public Health recommendations for the implementation of dust control measures, including regular application of water during soil-disturbance activities, to reduce exposure to Valley Fever by minimizing the potential that the fungal spores become airborne (CDPH 2013). Further, regulations designed to minimize exposure to Valley Fever hazards are included in Title 8 of the California Code of Regulations and would be complied with during the Project's construction phase (California Department of Industrial Relations 2017).

In summary, the Project would not result in a significant impact attributable to Valley Fever exposure based on its geographic location and compliance with applicable regulatory standards and dust control measures, which will serve to minimize the release of and exposure to fungal spores. Therefore, impacts associated with Valley Fever exposure for sensitive receptors would be less than significant.

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

Less-than-Significant Impact. Land uses most commonly associated with odor complaints generally include agricultural uses (livestock and farming), wastewater treatment plants, food-processing plants, chemical plants, composting operations, refineries, landfills, dairies, and fiberglass molding facilities. The Project does not include uses that would be substantive sources of objectionable odors. Potential temporary and intermittent odors may result from construction equipment exhaust, the application of asphalt, and architectural coatings. Temporary and intermittent construction-source emissions are controlled through existing requirements and industry Best Management Practices addressing proper storage of and application of construction materials.

The Project would also be required to comply with MDAQMD Rule 402 (Nuisance). Rule 402 provides that "[a] person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property" (MDAQMD 1976). Based on the preceding, the potential for the Project to create objectionable odors affecting a substantial number of people would be less than significant.

Threshold E: Would the Project result in cumulatively considerable air quality impacts?

Significant and Unavoidable Impact. Air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development, and the MDAQMD develops and implements plans for future attainment of ambient air quality standards. Based on these considerations, Project-level thresholds of significance for criteria pollutants are relevant in the determination of whether a project's individual emissions

would have a cumulatively significant impact on air quality. Individual projects that do not generate operational or construction emissions that exceed the MDAQMD's recommended daily thresholds for project-specific impacts would also not cause a cumulatively considerable increase in emissions for those pollutants for which the MDAB is in nonattainment, and, therefore, would not be considered to have a significant, adverse air quality impact.

The area of the MDAB in which the Project is located is a nonattainment area for O_3 and PM_{10} under the NAAQS and/or CAAQS. The poor air quality in the MDAB is the result of cumulative emissions from motor vehicles, off-road equipment, commercial and industrial facilities, and other emission sources. Projects that emit these pollutants or their precursors (i.e., VOC and NO_x for O_3) potentially contribute to poor air quality. As indicated in Table 4.2-10, daily construction emissions associated with the Project would not exceed the MDAQMD significance thresholds if mitigation measures are implemented to reduce VOC emissions from architectural coating (MM-AQ-1). Project operational-source air pollutant emissions, however, would result in exceedances of regional thresholds for emissions of NO_X and PM_{10}, even after implementation of mitigation. With implementation of MM-AQ-2, long-term emissions of CO would be reduced to a less than significant level, but NO_x and PM_{10} emissions would remain over the MDAQMD's significance thresholds. Although MM-AQ-2 would reduce operational emissions from off-road equipment to the extent feasible, neither the Project Applicant nor the Town of Apple Valley have regulatory authority to control tailpipe emissions, and no feasible MMs exist that would reduce these emissions to levels that are less-than-significant. As such, Project operational-source NO_X and PM_{10} emissions exceedances of applicable MDAQMD regional thresholds would be significant and unavoidable, and thus, cumulatively considerable.

4.2.5 Mitigation Measures and Level of Significance After Mitigation

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

The Project would result in potentially significant impacts with regard to conflicting with or obstructing implementation of an applicable air quality plan. Implementation of MM-AQ-1 through MM-AQ-3 would reduce the Project's impacts; however, impacts would remain significant and unavoidable.

The Project shall implement the following measures in order to reduce operational air pollutant emissions to the extent feasible:

Construction Mitigation Measures

MM-AQ-1 Architectural Coating Requirements. Architectural and industrial maintenance coatings (e.g., paints) applied to the Project site shall have volatile organic compound levels of less than 10 grams per liter.

Operation Mitigation Measures

MM-AQ-2 Zero-Emission or Near-Zero-Emission Equipment. The following measure shall be implemented during all ongoing business operations and shall be included as part of contractual lease agreement language to ensure that tenants and operators of the Project are informed of the following operational responsibility:

- All equipment and appliances operating on the Project site shall be zero-emission or near-zero-emission equipment. This requirement shall apply to indoor and outdoor equipment such as

forklifts, handheld landscaping equipment, yard equipment, and office appliances. The building manager or their designee shall be responsible for enforcing these requirements.

MM-AQ-3 Restriction on Cold and/or Refrigerated Space. Operations involving cold or refrigerated storage shall be prohibited unless additional environmental review, including a health risk assessment, is conducted and certified pursuant to the California Environmental Quality Act.

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?

Short-Term Construction Impacts

Construction of the Project would result in a less than significant cumulatively considerable net increase of criteria pollutants with the implementation of mitigation measures.

Long-Term Operational Impacts

Operation of the Project would result in a potentially significant cumulatively considerable net increase of criteria pollutants for which the Project region is non-attainment (i.e., NO_X and PM_{10}). Implementation of MM-AQ-1 would reduce the Project's impacts; however, impacts would remain significant and unavoidable.

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

Construction and operation of the Project would not expose sensitive receptors to substantial pollutant concentrations, including concentrations of CO emissions (after the implementation of mitigation measures), toxic air contaminants, and spores of the *Coccidioides immitis* fungus (which can result in Valley Fever). Operation of the Project would not result in significant cancer risk at the nearest residence. If MM-AQ-1 is implemented Project health risk impacts would be further reduced, and still less than significant with mitigation incorporated. Finally, since the Project could also result in exceedances of MDAQMD significance thresholds for NO_x and PM_{10}, even after implementation of MM-AQ-1 through MM-AQ-3, the potential health effects associated with criteria air pollutants are conservatively considered significant and unavoidable.

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

The Project would result in less-than-significant impacts associated other emissions (such as those leading to odors), which could adversely affect a substantial number of people. No mitigation is required.

Threshold E: Would the Project result in cumulatively considerable air quality impacts?

As discussed in Threshold B, construction of the Project would result in a less-than significant cumulative air quality impact with implementation of MM-AQ-1; however, despite implementation of MM-AQ-2, operational-source NO_X and PM_{10} emissions exceedances of applicable MDAQMD regional thresholds would be significant and unavoidable, and thus, cumulatively considerable overall.

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4.3 Biological Resources

This section describes the existing biological resources conditions of the Project site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed Project.

In addition to the documents incorporated by reference (see Section 2.7, Documents Incorporated by Reference, of this environmental impact report [EIR]), this analysis is based, in part, on the following sources:

- Existing Conditions Report, prepared by Dudek in January 2024 (Appendix C-1)
- Burrowing Owl Relocation Plan January 2024 (Appendix C-2)

The Existing Conditions Report analyzes the biological resources present within the approximately 201.1-acre Project, specifically the 178.7-acre Project site, 22.4-acre off-site improvement areas extending beyond the Project site ("off-site areas"), and a 100-foot buffer around the Project site and off-site improvement areas (where they extend beyond the Project site buffer) totaling 25.8 acres, resulting in the Biological Study Area (BSA), which encompasses 226.9 acres.

These studies were prepared in compliance with the California Environmental Quality Act (CEQA) and other applicable environmental regulations. Furthermore, the analysis within this section involved the review of existing biological resources; technical data; and applicable laws, regulations, and guidelines to adequately assess potential impacts to biological resources.

As discussed in detail in Chapter 3, Project Description, of this EIR, the Project proposes the construction and operation of two industrial/warehouse buildings and associated improvements.

4.3.1 Existing Conditions

The following discussion summarizes the existing biological resources present within the BSA. A description of the existing vegetation communities, special-status species, and jurisdictional waters, including wetlands and wildlife corridors, are discussed below. Note that the Existing Conditions Report and Aquatic Resources Delineation Report analyzed the entire BSA (226.9 acres); however, the Project impact calculations and impact table (Table 4-3.1) in Section 4.3.4, Impact Analysis, of this Draft EIR only analyzes the Project footprint (178.7-acre Project site and 22.4-acre off-site improvement areas) for direct impacts. The entire BSA was evaluated for indirect impacts.

4.3.1.1 Topography and Soils

The BSA is composed predominantly of undeveloped, vacant lands, with approximately 20 acres at the northeast portion of the Project site currently used for stockpiling of soil and similar type materials from off-site mining activities; a metal storage structure associated with the stockpiling activities is located within the stockpiling area. Stockpiling activities would cease upon construction of the Project and the storage structure would be removed from the site. The off-site improvement areas include dirt and paved roadways (specifically Outer Highway 15 or Interstate-15 frontage road, Norco Road, Falchion Road, and Quarry Road), as well as undeveloped, vacant lands immediately adjacent to these roadways. Topography within the BSA is generally flat with some areas of small hills. Elevation ranges from approximately 2,910 feet above mean sea level (amsl) to 3,060 feet amsl, generally sloping from east to west toward I-15. Adjacent land uses include various unpaved roads and vacant land to the north, I-

15 to the west, Falchion Road, Apple Valley Road, various other unpaved roads, and vacant land to the south, and aggregate mining operations to the east.

According to the U.S. Department of Agriculture's Natural Resource Conservation Service's Web Soil Survey (USDA 2023), the BSA consists of four soil mapping units: Cajon-Arizo complex, 2%-15% slopes; Mirage-Joshua complex, 2%-5% slopes; pits; and Trigger-Sparkhule-rock outcrop association, steep. These soil types are presented in Figure 4.3-1, Soils.

4.3.1.2 Vegetation Communities and Land Covers

The BSA supports four vegetation communities or land cover types, as identified in Table 4.3-1 and Figure 4.3-2, Biological Resources. Vegetation communities and land uses mapped within the BSA include creosote bush scrub, rubber rabbitbrush scrub, disturbed habitat, and urban/developed areas. Vegetation mapping within the Project site was conducted by Glen Lukos Associates (GLA) in 2023, while vegetation mapping within the remaining BSA was completed by Dudek using aerial imagery and existing data from Appendix C-1, Existing Conditions Report, of the Environmental Impact Report: Apple Valley 143 Project (Town of Apple Valley 2023).

Vegetation communities within the BSA were mapped following California Department of Fish and Wildlife (CDFW) Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (CDFW 2018) and California Natural Community List (CDFW 2023a), also referred to as the Natural Communities List, based on the Manual of California Vegetation, second edition (Sawyer et al. 2009). These classification systems focus on a quantified, hierarchical approach that includes both floristic (plant species) and physiognomic (community structure and form) factors as currently observed (as opposed to predicting climax or successional stages). Vegetation communities and land covers were delineated to the vegetation alliance level and, where appropriate, the association level. Some modifications, such as the Preliminary Descriptions of the Terrestrial natural Communities of California (Holland 1986; Oberbauer et al. 2008), were incorporated to accommodate the lack of conformity of the observed communities to those included in these references.

Table 4.3-1. Existing Vegetation Communities, Floristic Alliances and Associations, and Land Cover Types within the Biological Survey Area

Floristic Alliance	Association	Vegetation Community[1]	Project Site (acres)	Off-Site Areas (acres)	100-Foot Buffer[2] (acres)	Total BSA (acres)[3]
Larrea tridentata	*Larrea tridentata*	Creosote bush scrub	92.62	0.98	9.16	102.76
Ericameria nauseosa	*Ericameria nauseosa*	Rubber rabbitbrush scrub	55.64	6.75	2.45	64.84
N/A	N/A	Disturbed habitat	5.34	4.09	1.64	11.07
N/A	N/A	Urban/developed	25.12	10.54	12.57	48.23
		Total[2]	**178.72**	**22.35**	**25.82**	**226.9**

Notes: BSA = biological survey area; N/A = not applicable.
1 The spatial distribution of the vegetation communities and land covers are presented on Figure 4.3-2, Biological Resources.
2 Area includes 100-foot buffer around the Project site and off-site improvement areas (where they extend beyond the Project site buffer).
3 Total acreages may not sum exactly due to rounding.

Creosote Bush Scrub (33.010.00)

The creosote bush shrubland alliance includes creosote bush as the dominant or co-dominant species in the shrub canopy. Creosote bush has an open shrub canopy of less than 3 meters (9.8 feet) tall, with an open to intermittent herbaceous layer of annuals and perennial grasses (CNPS 2023). Species associated with the creosote bush alliance include bursage (*Ambrosia dumosa*), cheesebush (*Ambrosia salsola*), allscale scrub (*Atriplex polycarpa*), shadscale (*Atriplex confertifolia*), Nevada joint fir (*Ephedra nevadensis*), and Anderson's boxthorn (*Lycium andersonii*.). Emergent trees such as honey mesquite (*Prosopis glandulosa*), and western Joshua tree (*Yucca brevifolia*) may be present at low cover.

The creosote bush alliance is ranked by the CDFW as a G5/S5 alliance. This ranking indicates that globally and within California the alliance is widespread, abundant, and secure (CDFW 2023a; NatureServe 2023); therefore, the community is not considered sensitive under CEQA.

The creosote bush scrub alliance occurs throughout the southwestern portion of the BSA, and along the northern border of the BSA.

Rubber Rabbitbrush Scrub

Rubber rabbitbrush alliance communities include rubber rabbitbrush as the dominant or co-dominant shrub in the canopy. Rubber rabbitbrush has an open to continuous shrub canopy less than 3 meters (9.8 feet) in height with a sparse herbaceous layer (CNPS 2023). Species associated with the rubber rabbitbrush alliance include big sagebrush (*Artemesia tridentata*), yellow rabbitbrush (*Chrysothamnus viscidiflorus*), ephedra (*Ephedra* spp.), California buckwheat (*Eriogonum fasciculatum*), scale broom (*Lepidospartum squamatum*), and antelope bitterbrush (*Purshia tridentata*) (CNPS 2023). Emergent trees may be present at low cover, including California juniper (*Juniperus californica)*, Jeffrey pine (*Pinus jeffreyi)*, single-leaf pinyon (*Pinus monophyla)* or western Joshua tree (CNPS 2023).

The rubber rabbitbrush alliance is ranked by the CDFW (2023c) as a G5/S5 alliance. This ranking indicates that globally and within California the alliance is widespread and abundant (CDFW 2023a; NatureServe 2023).

The rubber rabbitbrush scrub alliance occurs in the northeastern portion of the BSA.

Disturbed Habitat

Disturbed habitat refers to areas where soils have been recently or repeatedly disturbed by grading, compaction, or clearing of vegetation. Structures are typically not present within disturbed habitats, and these areas provide relatively low value for most plant and wildlife species. When vegetated, disturbed habitat supports predominantly non-native plant species such as ornamentals or ruderal exotic species that take advantage of disturbance.

Disturbed habitat is not a listed vegetation community under the California Natural Community List (CDFW 2023a), but it has been used in this report because it best describes what was observed in the field. As such, this community is not globally, or state ranked and is not considered a sensitive natural community under CEQA.

Within the BSA, disturbed habitat occurs within the Outer Highway 15 right-of-way and along unpaved roads throughout the BSA.

Urban/Developed Land

Urban or developed land covers refer to areas that have been constructed on or otherwise physically altered to the point where vegetation is no longer present. Urban or developed areas are characterized by permanent or semi-permanent structures, hardscapes, and landscaped areas that require irrigation.

Developed land is not a listed vegetation community under the California Natural Community List (CDFW 2023a), but it has been used in this report because it best describes what was observed in the field. As such, this community is not globally, or state ranked and is not considered a sensitive natural community under CEQA.

Within the BSA, urban/developed areas occur along paved and unpaved roads that run through the BSA including Outer Highway 15, Quarry Road, and Falchion Road, in addition to an existing mining facility in the southeastern corner of the BSA.

4.3.1.3 Plants and Wildlife Observed

Biological field surveys, including biological reconnaissance surveys, focused special-status plant and desert native plant surveys, western Joshua tree mapping, protocol surveys for Mojave desert tortoise *(Gopherus agassizii*), western burrowing owl (*Athene cunicularia*), and Mohave ground squirrel (*Xerospermophilus mohavensis*), and aquatic resources delineation were conducted within the BSA from June 2022 through June 2023. All plant and wildlife species observed during the surveys were recorded.

Plants

A total of 93 species of native or naturalized plants, 80 native (92%) and 13 non-native (8%), were recorded within the on-site BSA. A list of plant species observed by Dudek and GLA biologists is provided in Appendix F, Plant Compendium, of Appendix C-1 (Existing Conditions Report). A complete compendium of plants observed in the off-site BSA can be found in Appendix C, Biological Technical Report, of the Draft Environmental Impact Report: Apple Valley 143 Project (Town of Apple Valley 2023).

Wildlife

A total of 37 wildlife species, consisting of 34 native species (92%) and 3 non-native species (8%), were recorded by Dudek and GLA biologists within the on-site BSA during surveys (Appendix G of Appendix C-1).

Birds detected on or in the immediate vicinity of the BSA included bushtit (*Psaltriparus minimus*), house finch (*Haemorhous mexicanus*), lesser nighthawk (*Chordeiles acutipennis*), Anna's hummingbird (*Calypte anna*), American crow (*Corvus brachyrhynchos*), common raven (*Corvus corax*), horned lark (*Eremophila alpestris*), turkey vulture (*Cathartes aura*), house sparrow (*Passer domesticus*), mourning dove (*Passer domesticus*), European starling (*Sturnus vulgaris*), barn swallow (*Hirundo rustica*), verdin (*Auriparus flaviceps*), rock wren (*Salpinctes obsoletus*), Bewick's wren (*Thryomanes bewickii*), black-throated sparrow (*Amphispiza bilineata*), Bell's sparrow (*Artemisiospiza belli*), chipping sparrow (*Spizella passerine*), and white-crowned sparrow (*Zonotrichia leucophrys*).

Mammals detected included desert cottontail (*Sylvilagus audubonii*), California ground squirrel (*Otospermophilus beecheyi*), domestic cat (*Felis catus*), black-tailed jackrabbit (*Lepus californicus*), and white-tailed antelope squirrel (*Ammospermophilus* leucurus).

Reptiles detected included common side-blotched lizard (*Uta stansburiana*), zebra-tailed lizard (*Callisaurus draconoides*), desert horned lizard (*Phrynosoma platyrhinos*), desert spiney lizard (*Sceloporus magister*), tiger whiptail (*Aspidoscelis tigris*), gophersnake (*Pituophis catenifer*), western rattlesnake (*Crotalus oreganus*), and Mohave rattlesnake (*Crotalus scutulatus*).

A complete compendium of wildlife observed in the off-site BSA can be found in Appendix C, Biological Technical Report, of the Draft Environmental Impact Report: Apple Valley 143 Project (Town of Apple Valley 2023).

4.3.1.4 Special-Status Plants

Special-status plants include those listed, or candidates for listing, as threatened or endangered by the U.S. Fish and Wildlife Service (USFWS) and CDFW, and species identified as rare by the California Native Plant Society (particularly California Rare Plant Rank [CRPR] 1A, presumed extinct in California; CRPR 1B, rare, threatened, or endangered throughout its range; and CRPR 2, rare or endangered in California, more common elsewhere).

GLA biologists initially evaluated the potential for special-status plant species to occur within the Project boundary (Appendix A of Appendix C-1). According to the report, species were considered based on a number of factors, including (1) species identified by the CNDDB as occurring (either currently of historically) on or in the vicinity of the Project (i.e., within the USGS "Victorville" 7.5-minute quadrangle); and (2) any other species that are known to occur within the vicinity of the Project boundary, or for which potentially suitable habitat occurs on site. Of the 21 special-status plants species identified in the database queries as potentially occurring in the vicinity, six species were either documented by GLA as occurring within the Project boundary or were determined by GLA to have some potential to occur within the Project boundary: beaver dam breadroot, crowned muilla (*Muilla coronata*), Mojave fish-hook cactus (*Sclerocactus polyancistrus*), solitary blazing star (*Mentzelia eremophila*), western Joshua tree, and white pygmy-poppy (*Canbya candida*). An analysis of these species and their potential to occur is included in the GLA Biological/Regulatory Resource Evaluation (Appendix A of Appendix C-1). Of these species recommended by GLA, all are CRPR 4 species except for beaver dam breadroot, which is a CRPR 1B species. CRPR 4 species are not considered special-status, and therefore, only beaver dam breadroot was included as a target species for the 2023 focused rare plant surveys. Western Joshua tree is a candidate species under the California Endangered Species Act and was subject to a census survey, discussed further below.

Additionally, Dudek conducted an extensive desktop review of literature, existing documentation, and GIS data to evaluate the potential for special-status plant species to occur within the BSA, and identified the following nine species as either occurring within the BSA or having a moderate or high potential to occur within the BSA: desert cymopterus, purple nerve cymopterus, Mojave monkey flower, Barstow woolly sunflower, sagebrush loeflingia, short-joint beavertail, Latimer's woodland-gilia, San Bernardino aster, and western Joshua tree. Therefore, these species were also included as target species for 2023 focused rare plant surveys.

One special-status plant species, western Joshua tree, was observed within the BSA. Western Joshua tree is a state candidate for listing and is further discussed in the following section. No other listed and/or CRPR 1 or 2 plants were observed during the 2023 focused surveys. Due to focused surveys being conducted during the appropriate blooming period, all other special-status plants are not expected to occur. In addition, there is no USFWS-designated critical habitat for listed plant species overlapping the BSA (USFWS 2023).

Western Joshua Tree

Western Joshua tree is a California state candidate for listing. Western Joshua tree is a monocot tree in the asparagus family (*Agavaceae*) that occurs within Joshua tree woodland, Great Basin grassland and scrub, Mojavean desert scrub, pinyon and juniper woodland, Sonoran desert scrub, and valley and foothill grassland. This species occurs in San Bernardino County and other southern and eastern counties in California between 1,310 and 6,560 feet amsl (CNPS 2023). This species typically blooms between April and May but is a conspicuous tree and identifiable at any time of year.

In total, 298 western Joshua tree individuals were observed within the Joshua tree inventory survey area (Project site plus off-site improvements and associated 50-foot buffer required by the Western Joshua Tree Conservation Act [WJTCA]). Of the 298 trees found within the Joshua tree inventory survey area, 283 western Joshua tree individuals are within the Project site plus off-site improvements area, with the remaining 15 western Joshua tree individuals located within the 50-foot Joshua tree inventory survey area buffer. Further details on phenological data of the 298 western Joshua tree individuals observed is provided in Appendix C of Appendix C-1.

Desert Native Plants

In addition to western Joshua tree, two desert native plants were observed within the BSA during the focused desert native plant survey: one Wiggins' cholla (*Cylindropuntia echinocarpa*) and one Mojave yucca (*Yucca schidigera*) (Figure 4.3-2).

4.3.1.5 Special-Status Wildlife

Special-status wildlife include those listed, or candidates for listing, as threatened or endangered by USFWS and CDFW, and those designated as species of special concern by CDFW.

GLA biologists initially evaluated the potential for special-status wildlife species to occur within the Project boundary (Appendix A of Appendix C-1). According to the report, species were considered based on a number of factors, including (1) species identified by the CNDDB as occurring (either currently of historically) on or in the vicinity of the Project; and (2) any other species that are known to occur within the vicinity of the Project boundary, or for which potentially suitable habitat occurs on site. Of the 31 special-status wildlife species identified in the database queries as potentially occurring in the vicinity, eight species were determined by GLA to have a moderate potential to occur within the Project boundary: Mojave desert tortoise, burrowing owl, Le Conte's thrasher (*Toxostoma lecontei*), loggerhead shrike (*Lanius ludovicianus*), Crotch's bumble bee, Mohave ground squirrel, pallid bat (*Antrozous pallidus*), and Townsend's big-eared bat (*Corynorhinus townsendii*). Those special-status wildlife species that are not expected or have low potential to occur within the Project boundary are discussed in Appendix A of Appendix C-1 but not discussed further in this report as no significant direct or indirect impacts are expected.

No special-status wildlife species were observed within the BSA. In addition, there is no USFWS-designated critical habitat for listed wildlife species overlapping the BSA (USFWS 2023). Suitable habitat for Crotch's bumble bee was not detected during the habitat assessment. Protocol-level surveys for Mohave ground squirrel were negative. Therefore, these species are not expected to occur and will not be analyzed further. Focused surveys for Mojave desert tortoise and burrowing owl were negative, but potentially suitable burrows for both species were detected. These are transient species and may still incidentally occur within the BSA. As such, these species will be analyzed further.

Mojave Desert Tortoise

Desert tortoise is a federally and state-listed threatened species. The range of the Mohave population of the desert tortoise includes portions of the Mojave Desert and the Colorado Desert in Southern California (parts of Inyo, Kern, Los Angeles, San Bernardino, and Riverside Counties), southern Nevada (Clark, Esmeralda, Nye, and Lincoln Counties), northwestern Arizona (Mohave County), and southwestern Utah (Washington County).

Typical habitat for desert tortoise in the Mojave Desert is creosote bush scrub where precipitation ranges from 2 to 8 inches, with relatively high diversity of perennial plants and high productivity of ephemeral plants. Throughout most of the Mojave Desert, desert tortoises occur most commonly on gently sloping terrain with sandy gravel soils and where there is sparse cover of low-growing shrubs, which allows for the establishment of herbaceous plants. Soils must be friable enough for digging burrows, but firm enough that burrows do not collapse (USFWS 2008). Although populations of desert tortoise are not generally known to inhabit elevations much above 4,000 feet amsl, they occur from below sea level to an elevation of 7,300 feet amsl. Occupied habitat varies from flats and slopes dominated by creosote bush scrub at low elevations, to rocky slopes in blackbrush and juniper woodland ecotones at higher elevations (USFWS 2008).

Although the BSA contains suitable sandy soils and ephemeral washes within Mojave Desert habitat, desert tortoise was not observed during focused surveys. However, potentially suitable burrows and sign were mapped within the Project boundary (Figure 4.3-2). On site, there were 12 burrows with a rank 4 designation, indicating that they are suitable for desert tortoise and in good condition, but with no active sign, and six burrows with a rank 5 designation, indicating that they may have been used by desert tortoise in the past, but have no active sign and have since deteriorated. Additionally, the BSA contains 11 areas supporting desert tortoise pallet sites, i.e., shallow burrows or bank overhangs often consisting of caliche substrate where desert tortoise may temporarily take shelter. Finally, there was one incidence of what is potentially desert tortoise scat within the BSA (Figure 4.3-2). Furthermore, the nearest CNDDB occurrence was from 2005 and is mapped approximately 1 mile south of the BSA (CDFW 2023b). Based on the discussion above, desert tortoise has a moderate potential to occur within the BSA. Desert tortoise survey forms are included as Appendix H of Appendix C-1.

Burrowing Owl

Burrowing owl is a California Species of Special Concern. With a relatively wide-ranging distribution throughout the west, burrowing owls are considered to be habitat generalists (Lantz et al. 2004). In California, burrowing owls are yearlong residents of open, dry grassland and desert habitats and grass, forb, and open shrub stages of pinyon-juniper and ponderosa pine habitats (Zeiner et al. 1990). Preferred habitat is generally typified by short, sparse vegetation with few shrubs, level to gentle topography, and well-drained soils (Haug et al. 1993).

The presence of burrows is the most essential component of burrowing owl habitat as they are required for nesting, roosting, cover, and catching prey (Coulombe 1971; Martin 1973; Green and Anthony 1989; Haug et al. 1993). In California, western burrowing owls most commonly live in burrows created by California ground squirrels. Burrowing owls may occur in human-altered landscapes such as agricultural areas, ruderal grassy fields, vacant lots, and pastures if the vegetation structure is suitable (i.e., open and sparse), useable burrows are available, and foraging habitat occurs in close proximity (Gervais et al. 2008). Debris piles, riprap, culverts, and pipes can be used for nesting and roosting.

Although the BSA contains open scrub areas that may support this species, burrowing owl was not observed during focused surveys. However, numerous burrows that are potentially suitable for nesting were mapped (Figure 4.3-2).

Mapped burrows were at least 4 inches in diameter, and all were natural earthen burrows. No active burrowing owl sign (i.e., feathers, whitewash, or pellets) were observed within the BSA. The nearest mapped CNDDB record is approximately 4.5 miles southwest of the BSA, from 2008 (CDFW 2023b). Based on the discussion above, burrowing owl has a moderate potential to occur within the BSA.

LeConte's Thrasher

LeConte's thrasher is a USFWS Bird of Conservation Concern and a California Species of Special Concern. LeConte's thrasher is found from below sea level up to 1,600 meters amsl in Southern California deserts in southern Mono County to the Mexican border (Dobkin and Granholm 2005; Sheppard 2019).

Preferred habitat for LeConte's thrasher is open desert wash, desert scrub, alkali desert scrub, and desert succulent shrub habitats; LeConte's thrasher also occurs in western Joshua tree habitat with scattered shrubs (Dobkin and Granholm 2005). This species prefers gently rolling to well-drained slopes occupied by saltbush and joint fir (*Ephedra* sp.) with bare ground or sparse grass (Fitton 2008). These conditions are generally found on bajadas or alluvial fans where the slopes are bisected by dry washes (Fitton 2008). Much of the LeConte's thrasher's diet consists of insects found within leaf litter under desert shrubs; therefore, habitat must contain a sufficient ground cover (Sheppard 2019).

LeConte's thrasher was not observed during biological surveys. However, the BSA supports suitable foraging habitat (desert scrub) and nesting habitat (spiny shrubs and cactus). The nearest mapped CNDDB record is approximately 1.8 miles southwest of the BSA near the Mojave River from 2017 (CDFW 2023b). Based on the discussion above, LeConte's thrasher has a moderate potential to occur within the BSA.

Loggerhead Shrike

Loggerhead shrike (*Lanius ludovicianus*) is a USFWS Bird of Conservation Concern and a California Species of Special Concern. It is widespread throughout the United States, Mexico, and portions of Canada (Humple 2008). The species is a yearlong resident in most of the United States, including from California east to Virginia and south to Florida, and in Mexico. In California, although shrikes are widespread at the lower elevations in the state, the largest breeding populations are located in portions of the Central Valley, the Coast Ranges, and the southeastern deserts (Humple 2008).

Preferred habitats for loggerhead shrike are open areas that include scattered shrubs, trees, posts, fences, utility lines, or other structures that provide hunting perches with views of open ground, as well as nearby spiny vegetation or human-made structures (such as the tops of chain-link fences or barbed wire) that provide a location to impale prey upon for storage or manipulation (Humple 2008). Loggerhead shrikes occur most frequently in riparian areas along woodland edges, grasslands with sufficient perch and butcher sites, scrublands, and open canopied woodlands, although they can be quite common in agricultural and grazing areas, and can sometimes be found in mowed roadsides, cemeteries, and golf courses. Loggerhead shrikes occur only rarely in heavily urbanized areas. For nesting, the height of shrubs and presence of canopy cover are most important (Yosef 1996).

Loggerhead shrike was not observed during biological surveys. However, the BSA supports open habitat with scattered shrubs and trees that may provide suitable nesting and foraging habitat for loggerhead shrike. The nearest mapped CNDDB record is approximately 2.6 miles southwest of the BSA near the Mojave River from 2006 (CDFW 2023b). Based on the discussion above, loggerhead shrike has a moderate potential to occur within the BSA.

Crotch's Bumble Bee

Crotch's bumble bee is a state candidate for listing as threatened. The Crotch's bumble bee is distributed in coastal California, east towards the Sierra-Cascade Crest, and is less commonly in western Nevada (Koch 2012). It occurs in grassland and scrub communities that contain *Phacelia, Clarkia, Eriogonum, Eschscholzia*, and *Antirrhinum* species, which have been identified as genera with preferred nectar sources.

The BSA contains scrub communities that could potentially support the preferred plant genera. However, the only historical record within the 9 USGS 7.5-minute quad area containing the BSA is approximately 4 miles northeast of the BSA near Bell Mountain from 1944 (CDFW 2023b). Additionally, Dudek conducted a focused habitat assessment for this species concurrently with rare plant surveys, and determined there were no suitable floral resources on site to support this species. Therefore, Crotch's bumble bee is not expected to occur within the BSA.

Mohave Ground Squirrel

Mohave ground squirrel is a State of California threatened species. This species' distribution range is restricted to the Mojave Desert in San Bernardino, Los Angeles, Kern, and Inyo Counties (Zeiner et al. 1990). Mohave ground squirrels generally inhabit areas where the soil is friable and sandy or gravelly. Mohave ground squirrels occur in desert scrub habitats dominated by creosote bush and desert saltbush scrub at elevations between 1,800 and 5,000 feet amsl.

No Mohave ground squirrels were captured or detected during protocol surveys conducted by Dipodomys Ecological Consulting (see Appendix D of Appendix C-1 for details on the methods and results of this survey effort). A habitat assessment for Mohave ground squirrel conducted over the off-site BSA determined that while marginally suitable habitat is present, the species is not expected to occur in this area. This area lacks connectivity to core populations of the species, and the Mohave ground squirrel population densities in the southern portion of its range (i.e., where the Project is located) are relatively low. Finally, the more recent known occurrence of the species was documented in 2011 approximately 9 miles southwest of the Project boundary across the Mojave River. Given the low-quality habitat present in the off-site BSA, as well as a lack of connectivity to core populations and low population densities of Mohave ground squirrel in the vicinity of the Project site, protocol surveys were not warranted in the off-site BSA. Based on the discussion above, Mohave ground squirrel is not expected to occur within the BSA.

Pallid Bat

Pallid pat is a State of California Species of Special Concern. This species is widespread throughout the western United States; southern British Columbia, Canada; and mainland and Baja California, Mexico (Hermanson and O'Shea 1983; Hall 1981). The pallid bat is locally common in arid deserts (especially the Sonoran life zone) and grasslands throughout the western United States and also occurs in shrublands, woodlands, and forests at elevations up to 2,440 meters (8,000 feet) (Hermanson and O'Shea 1983; Hall 1981). Although this species prefers rocky outcrops, cliffs, and crevices with access to open habitats for foraging, it has been observed far from such areas (Hermanson and O'Shea 1983).

Pallid bat has a moderate potential to forage within desert scrub habitat of the BSA but is not expected to roost.

Townsend's Big-Eared Bat

Townsend's big-eared bat is a State of California Species of Special Concern. The Townsend's big-eared bat ranges throughout the western United States; British Columbia, Canada; and Mexico (Kunz and Martin 1982). Within California, Townsend's big-eared bat occurs throughout the state, except for alpine and subalpine areas of the Sierra Nevada

Townsend's big-eared bat has a moderate potential to forage within desert scrub habitat of the BSA but is not expected to roost.

4.3.1.6 Jurisdictional Resources

The jurisdictional aquatic resources delineation identified numerous ephemeral drainages within the BSA (Appendix B of Appendix C-1). The results of the jurisdictional delineation concluded that there are approximately 1.93 acres of jurisdictional aquatic resources within the BSA (Figure 4.3-3, Jurisdictional Aquatic Resources). Of that total, 1.68 acres are non-wetland waters of the state under RWQCB jurisdiction and jurisdictional streambed under CDFW. An additional 0.25 acres are solely jurisdictional streambed under CDFW. The ephemeral drainages present are not likely subject to USACE jurisdiction because these features are isolated and do not meet the relatively permanent standard as a water of the United States. In general, the drainages within the BSA flow east to west towards Bell Mountain Wash. The drainages are unvegetated and do not contain flowing or standing water.

See Appendix B of Appendix C-1 for further descriptions of these resources.

4.3.1.7 Wildlife Corridors and Habitat Linkages

Wildlife corridors are linear features that connect large patches of natural open space and provide avenues for the migration of animals. Wildlife corridors contribute to population viability by ensuring continual exchange of genes between populations, providing access to adjacent habitat areas for foraging and mating, and providing routes for recolonization of habitat after local extirpation or ecological catastrophes (e.g., fires).

Habitat linkages are small patches that join larger blocks of habitat and help reduce the adverse effects of habitat fragmentation. Habitat linkages provide a potential route for gene flow and long-term dispersal of plants and animals and may also serve as primary habitat for smaller animals, such as reptiles and amphibians. Habitat linkages may be continuous habitat or discrete habitat islands that function as steppingstones for dispersal.

The BSA is not mapped as an essential connectivity area, natural landscape block, or linkage for the California Desert Linkage Network. While it is approximately 1 mile northeast of an area mapped as a linkage for the California Desert Linkage Network, it should be noted that Highway 15, which is mapped as a wildlife movement barrier by CDFW, separates the BSA from the northern and western portion of this area. Additionally, the southern portion of this linkage is already generally surrounded by urban development. The BSA falls within lands mapped as Rank 1 (i.e., lands that have limited connectivity opportunity) (CDFW 2019).

According to CDFW (2019), rank 1 is defined as:

> Areas where land use may limit options for providing connectivity (e.g., agriculture, urban) or no connectivity importance has been identified in models. Includes lakes. Some Department of

Defense (DOD) lands are also in this category because they have been excluded from models due to lack of conservation opportunity, although they may provide important connectivity habitat.

Additionally, due to the undeveloped land on the BSA, there are opportunities for wildlife to move across the site when migrating through the region. However, the BSA does not currently function as a corridor or linkage between two larger habitat blocks. Although the BSA may function as local dispersal habitat for wildlife movement and/or foraging/hunting, the Project would not create a significant impediment to wildlife movement that would warrant a wildlife corridor study.

4.3.2 Relevant Regulations, Plans, Policies, and Ordinances

Federal

Federal Endangered Species Act

The federal Endangered Species Act (FESA) of 1973 (16 USC 1531 et seq.), as amended, is administered by the U.S. Fish and Wildlife Service (USFWS) for most plant and animal species, and by the National Oceanic and Atmospheric Administration National Marine Fisheries Service for certain marine species. This legislation is intended to provide a means to conserve the ecosystems upon which endangered and threatened species depend, and provide programs for the conservation of those species, thus preventing the extinction of plants and wildlife. FESA defines an endangered species as "any species that is in danger of extinction throughout all or a significant portion of its range." A threatened species is defined as "any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." Under FESA, it is unlawful to "take" any listed species; "take" is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct."

FESA allows for the issuance of Incidental Take Permits for listed species under Section 7, which is generally available for Projects that also require other federal agency permits or other approvals, and under Section 10, which provides for the approval of Habitat Conservation Plans on private property without any other federal agency involvement.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) prohibits the intentional and unintentional take of any migratory bird or any part, nest, or eggs of any such bird. Under the MBTA, "take" is defined as pursuing, hunting, shooting, capturing, collecting, or killing, or attempting to do so (16 USC 703 et seq.). Currently, the Migratory Birds Office considers nests that support eggs, nestlings, or juveniles to be active. Additionally, Executive Order 13186, Responsibilities of Federal Agencies to Protect Migratory Birds, requires that any Project with federal involvement address impacts of federal actions on migratory birds with the purpose of promoting conservation of migratory bird populations (66 FR 3853–3856). Executive Order 13186 requires federal agencies to work with USFWS to develop a memorandum of understanding. USFWS reviews actions that might affect these species.

Clean Water Act

The Clean Water Act (CWA) provides guidance for the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters. Section 401 requires a Project operator for a federal license or permit that allows activities resulting in a discharge to waters of the United States to obtain state certification, thereby

ensuring that the discharge will comply with provisions of the CWA. The Regional Water Quality Control Boards (RWQCBs) administer the certification program in California. Section 402 establishes a permitting system for the discharge of any pollutant (except dredged or fill material) into waters of the United States. Section 404 establishes a permit program administered by the U.S. Army Corps of Engineers (USACE) that regulates the discharge of dredged or fill material into waters of the United States, including wetlands. USACE implementing regulations are found at 33 Code of Federal Regulations (CFR) Parts 320 through 332. Guidelines for implementation are referred to as the Section 404(b)(1) Guidelines, which were developed by the U.S. Environmental Protection Agency in conjunction with USACE (40 CFR 230). The guidelines allow the discharge of dredged or fill material into the aquatic system only if there is no practicable alternative that would have less adverse impacts.

Wetlands and Other Waters of the United States

The definition of "waters of the United States" establishes the geographic scope for authority under Section 404 of the CWA; however, the CWA does not specifically define waters of the United States, leaving the definition open to statutory interpretation and agency rulemaking. The definition of what constitutes "waters of the United States" (provided in 33 CFR Section 328.3[a]) has changed multiple times over the past few decades starting with the *United States v. Riverside Bayview Homes, Inc*. court ruling in 1985. Subsequent court proceedings, rule makings, and congressional acts in 2001 (*Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers*), 2006 (*Rapanos v. United States*), 2015 (Clean Water Rule), 2018 (suspension of the Clean Water Rule), 2019 (formal repeal of the Clean Water Rule), 2020 (Navigable Waters Protection Rule), and 2021 (*Pasqua Tribe et al v. United States Environmental Protection Agency* resulting in remand and vacatur of the Navigable Waters Protection Rule and a return to "the pre-2015 regulatory regime") have attempted to provide greater clarity to the term and its regulatory implementation. On December 30, 2022, the agencies announced the final Revised Definition of "Waters of the United States" rule (Rule) (88 CFR 3004–3144). The Rule was published in the Federal Register on January 18, 2023, and became effective on March 20, 2023, restoring federal jurisdiction over waters that were protected prior to 2015 under the CWA for traditional navigable waters, the territorial seas, interstate waters, and upstream water resources that significantly affect those waters. The Rule represents a re-expansion of federal jurisdiction over certain water bodies and wetlands previously exempt pursuant to the 2020 Navigable Waters Protection Rule. The Rule also considers various subsequent court decisions including two notable Supreme Court decisions.

There are two key changes that the Rule incorporates. Firstly, the Rule reinstates the "Significant Nexus" test. The "Significant Nexus" test refers to waters that either alone, or in combination with similarly situated waters in the region, significantly affect the chemical, physical, or biological integrity of traditional navigable waters, interstate waters, or the territorial seas (86 FR 69372-69450). The "Significant Nexus" test attempts to establish a scientific connection between smaller water bodies (such as ephemeral or intermittent tributaries) and larger, more traditional navigable waters (such as rivers). Significant nexus evaluations take into consideration hydrologic and ecologic factors including, but not limited to, volume, duration, and the frequency of surface water flow in the resource and its proximity to a traditional navigable water, and the functions performed by the resource on adjacent wetlands. Second, the Rule adopts the "Relatively Permanent Standard" test. To meet the "Relatively Permanent Standard," water bodies must be relatively permanent, standing, or continuously flowing and have a continuous surface connection to such waters.

On May 25, 2023, the Supreme Court issued its long-anticipated decision in *Sackett v. EPA*, in which it rejected the EPA's claim that "waters of the United States," as defined in the CWA, include wetlands with an ecologically significant nexus to traditional navigable waters. The Supreme Court held that only those wetlands with a continuous surface water connection to traditional navigable waterways would be afforded federal protection under

the CWA. Specifically, to assert jurisdiction over an adjacent wetland under the CWA, a party must establish that (1) the adjacent body of water constitutes water(s) of the United States (i.e., a relatively permanent body of water connected to traditional interstate navigable waters) and (2) the wetland has a continuous surface connection with that water, making it difficult to determine where the water ends and the wetland begins. The Rule will need to be modified by the Biden administration in light of this decision.

The term "wetlands" (a subset of waters of the United States) is defined in 33 CFR, Section 328.3(c)(16), 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." In the absence of wetlands, the limits of USACE jurisdiction in non-tidal waters, such as intermittent streams, extend to the "ordinary high water mark," which is defined in 33 CFR 328.3(c)(7) as "that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas."

On August 30, 2023, the EPA released guidance further clarifying the definition of waters of the U.S. based on the Sackett vs. EPA ruling.

State

California Endangered Species Act

The California Endangered Species Act (CESA) (California Fish and Game Code Chapter 1.5) provides protection and prohibits the take of plant, fish, and wildlife species listed by the State of California. Unlike FESA, under CESA, state-listed plants have the same degree of protection as wildlife, but insects and other invertebrates may not be listed. Take is defined similarly to FESA and is prohibited for both listed and candidate species. Take authorization may be obtained by a Project applicant from the California Department of Fish and Wildlife (CDFW) under CESA Section 2081, which allows take of a listed species for educational, scientific, or management purposes. In this case, private developers consult with CDFW to develop a set of measures and standards for managing the listed species, including full mitigation for impacts, funding of mitigation implementation, and monitoring of mitigation measures.

Western Joshua Tree

On October 21, 2019, the California Fish and Game Commission received a petition from the Center for Biological Diversity to list western Joshua tree (*Yucca brevifolia*) (Center for Biological Diversity 2019).[1] On November 1, 2019, the California Fish and Game Commission referred the petition to CDFW for evaluation. CDFW evaluated the scientific information presented in the petition and other relevant information possessed by CDFW at the time of review and prepared a report for submittal to the California Fish and Game Commission. The report states that CDFW recommended that the California Fish and Game Commission accept the petition for further consideration of western Joshua tree under CESA. On September 22, 2020, the California Fish and Game Commission approved

[1] On October 21, 2019, the California Fish and Game Commission received a petition to list the following as threatened under the California Endangered Species Act: (1) western Joshua tree (*Yucca brevifolia*) throughout its California range, or, in the event the Commission determines that listing of *Yucca brevifolia* throughout its California range is not warranted, then (2) the western Joshua tree population within the northern part of western Joshua tree's California range, or (3) the western Joshua tree population within the southern part of western Joshua tree's California range.

the petition to accept the candidacy proposal for western Joshua tree, effective October 9, 2020 (CDFW 2020). When a plant or wildlife species is granted candidacy under the CESA, the species is given the same protection as a threatened or endangered species while the Commission evaluates whether formal listing as threatened or endangered under the CESA is warranted.

In listing western Joshua tree as a candidate species under CESA, the Commission directed CDFW staff to evaluate whether the species should be formally listed under CESA. In March 2022, CDFW staff presented its findings to the Commission and recommended against the listing, citing the species widespread distribution and lack of data regarding the extent to which climate changes are expected to affect the species. This information was presented to the Commission on June 15–16, 2022. The Commission voted on the proposed listing at this meeting, but the vote resulted in a 2–2 tie. The Commission discussed western Joshua tree's listing status at its October 12–13, 2022 meeting; however, it was decided at this meeting to extend Joshua tree's candidate status discussion until their February 23, 2023, meeting, which was anticipated to be the final meeting before a listing decision was made. On July 1, 2023, the WJTCA was passed. While western Joshua tree is a candidate species, take for western Joshua tree can be received through payment of pre-determined mitigation fees.

The WJTCA introduces a streamlined permitting framework that applies to specific development activities and mandates the collection of mitigation fees. These fees are intended to facilitate the acquisition and preservation of western Joshua tree habitat, as well as to support conservation measures aimed at safeguarding the western Joshua tree. The underlying goal is to counterbalance the adverse impacts on western Joshua trees resulting from authorized projects and to promote species conservation on a landscape scale.

Under the WJTCA, CDFW is authorized to perform the following key functions:

- Issue permits for the trimming and removal of hazardous or deceased western Joshua trees.
- Grant permits for the incidental take of western Joshua trees, contingent upon the fulfillment of specific conditions.
- Establish agreements with counties or cities to delegate limited authority for the issuance of the aforementioned permits, provided that predetermined conditions are met.

Furthermore, the WJTCA instructs CDFW to develop a comprehensive conservation plan for the western Joshua tree by the conclusion of the year 2024.

The WJTCA institutes two categories of mitigation fees: reduced fees and standard fees, depending on the geographical location, as defined in the California Department of Fish and Game Code (Section 1927). It empowers the CDFW to issue permits for the incidental take of one or more western Joshua trees, subject to compliance with stipulated conditions. Permit holders may opt to remit specified fees in lieu of undertaking mitigation activities. Additionally, the WJTCA authorizes the CDFW to issue permits for the removal of deceased western Joshua trees and the trimming of live western Joshua trees under specific circumstances.

Notably, all in-lieu fees collected under the WJTCA are directed to the Western Joshua Tree Conservation Fund, with the explicit purpose of allocation to the CDFW. These funds are designated exclusively for the acquisition, conservation, and management of western Joshua tree conservation lands, as well as the execution of other initiatives designed to safeguard the western Joshua tree.

Permitting

The initial step in the project permitting process necessitates the comprehensive survey and documentation of western Joshua trees located on the project site as well as within a 50-foot radius surrounding the project area. This census must adhere to precise specifications outlined on the CDFW's official website.

Simultaneously, a permit application, available on the CDFW's website, must be completed. The application mandates that the applicant complies with the CEQA. Notably, there are no stipulated statutory deadlines governing the permitting process; however, CDFW is committed to expeditiously processing the applications upon receipt. Upon successful processing of the application by CDFW, the permittee will be issued an invoice for the mandatory mitigation fee. This fee is to be remitted via check or money order, with the invoice securely attached, following the precise instructions provided by CDFW.

California Fish and Game Code

Fully Protected Species

Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code outline protection for fully protected species of mammals, birds, reptiles, amphibians, and fish. Species that are fully protected by these sections may not be taken or possessed at any time. CDFW cannot issue permits or licenses that authorize the "take" of any fully protected species, except under certain circumstances, such as scientific research and live capture and relocation of such species pursuant to a permit for the protection of livestock. Furthermore, it is the responsibility of CDFW to maintain viable populations of all native species. Toward that end, CDFW has designated certain vertebrate species as Species of Special Concern, because declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction.

Sections 1600–1616

CDFW jurisdiction includes ephemeral, intermittent, and perennial watercourses (including dry washes) and lakes characterized by the presence of definable bed and banks, and existing fish or wildlife resources. CDFW takes jurisdiction to the top of bank of the stream or the limit of the adjacent riparian vegetation, which may include oak woodlands in canyon bottoms. Under the CDFW definition, a watercourse need not exhibit evidence of an ordinary high-water mark (OHWM) to be claimed as jurisdictional. CDFW does not have jurisdiction over ocean or shoreline resources.

Under California Fish and Game Code Sections 1600–1616, CDFW has the authority to regulate work that will substantially divert or obstruct the natural flow of, or substantially change or use any material from, the bed, channel, or bank of any river, stream, or lake. CDFW also has the authority to regulate work that will deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake. This regulation takes the form of a requirement for a Lake or Streambed Alteration Agreement and is applicable to all Projects. Applications to CDFW must include a complete, certified California Environmental Quality Act (CEQA) document.

California Native Plant Protection Act

The Native Plant Protection Act of 1977 (Section 1900 et seq. of the California Fish and Game Code) directed CDFW to carry out the Legislature's intent to "preserve, protect and enhance rare and endangered plants in this State."

The Native Plant Protection Act gave the California Fish and Game Commission the power to designate native plants as "endangered" or "rare," and protect endangered and rare plants from take. CESA expanded on the original Native Plant Protection Act and enhanced legal protection for plants, but the Native Plant Protection Act remains part of the California Fish and Game Code. To align with federal regulations, the categories of "threatened" and "endangered" species were added to CESA. All "rare" animals in CESA were converted to "threatened," but this did not change for rare plants. Thus, there are three listing categories for plants in California: rare, threatened, and endangered. Because rare plants are not included in CESA, mitigation measures for impacts to rare plants are specified in a formal agreement between CDFW and Project proponents.

Nesting Birds

Section 3503 of the California Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nests or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Section 3503.5 protects all birds of prey (raptors) and their eggs and nests. Section 3511 states that fully protected birds or parts thereof may not be taken or possessed at any time. Section 3513 states that it is unlawful to take or possess any migratory non-game bird as designated in the MBTA.

California Environmental Quality Act

CEQA requires identification of a Project's potentially significant impacts on biological resources, and ways that such impacts can be avoided, minimized, or mitigated. CEQA also provides guidelines and thresholds for use by lead agencies for evaluating the significance of proposed impacts.

The State of California CEQA Guidelines (CEQA Guidelines) Section 15380(b)(1) defines endangered animals or plants as species or subspecies whose "survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors." A rare animal or plant is defined in CEQA Guidelines Section 15380(b)(2) as a species that, although not presently threatened with extinction, exists "in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or … [t]he species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered 'threatened' as that term is used in the federal Endangered Species Act." Additionally, an animal or plant may be presumed to be endangered, rare, or threatened if it meets the criteria for listing, as defined further in CEQA Guidelines Section 15380(c).

CDFW has developed a list of "Special Species" as "a general term that refers to all of the taxa the California Natural Diversity Database (CNDDB) is interested in tracking, regardless of their legal or protection status." This is a broader list than those species that are protected under FESA, CESA, and other California Fish and Game Code provisions, and includes lists developed by other organizations, including, for example, the Audubon Watch List. Guidance documents prepared by other agencies, including the Bureau of Land Management Sensitive Species and USFWS Birds of Special Concern, are also included on this CDFW Special Species list. Additionally, CDFW has concluded that plant species listed as California Rare Plant Rank (CRPR) 1 and 2 by the California Native Plant Society (CNPS), and potentially some CRPR 3 plants, are covered by CEQA Guidelines Section 15380.

Section IV, Appendix G, Environmental Checklist Form, of the CEQA Guidelines requires an evaluation of impacts to "any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service."

Porter–Cologne Water Quality Control Act

Pursuant to provisions of the Porter–Cologne Act, the RWQCBs regulate discharging waste, or proposing to discharge waste, within any region that could affect a water of the state (California Water Code Section 13260[a]). The State Water Resources Control Board defines a water of the state as "any surface water or groundwater, including saline waters, within the boundaries of the state" (California Water Code, Section 13050[e]). All waters of the United States are waters of the state. Waters of the state include wetlands, and the State Water Resources Control Board definition of wetlands includes the following:

1. Natural wetlands.
2. Wetlands created by modification of a surface water of the state.
3. Artificial wetlands that meet any of the following criteria:
    a. Approved by an agency as compensatory mitigation for impacts to other waters of the state, except where the approving agency explicitly identifies the mitigation as being of limited duration.
    b. Specifically identified in a water quality control plan as a wetland or other water of the state.
    c. Resulted from historic human activity, is not subject to ongoing operation and maintenance, and has become a relatively permanent part of the natural landscape.
    d. Greater than or equal to 1 acre in size unless the artificial wetland was constructed and is currently used and maintained, primarily for one or more of the following purposes: industrial or municipal wastewater treatment or disposal; settling of sediment; detention, retention, infiltration, or treatment of stormwater runoff and other pollutants or runoff subject to regulation under a municipal, construction, or industrial permitting program; treatment of surface waters; agricultural crop irrigation or stock watering; fire suppression; industrial processing or cooling water; active surface mining – even if the site is managed for interim wetlands functions and values; log storage; treatment, storage, or distribution of recycled water; maximizing groundwater recharge (this does not include wetlands that have incidental groundwater recharge benefits); or fields flooded for rice growing.

Wetlands that may not meet all of USACE's wetland delineation criteria are considered wetland waters of the state if, "under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation" (SWRCB 2019). Additionally, aquatic resources that USACE determines to not be waters of the United States because they lack a significant nexus to a traditional navigable water or are above the OHWM limit of federal jurisdiction, may also be considered waters of the state. If a CWA Section 404 permit is not required for a Project, the RWQCB may still require a permit (waste discharge requirements) for impacts to waters of the state under the Porter–Cologne Act.

California Native Desert Plants Act

The purpose of the California Desert Native Plants Act (CDNPA) is to protect certain species of California desert native plants from unlawful harvesting on both public and privately owned lands. The CDNPA only applies within the boundaries of Imperial, Inyo, Kern, Los Angeles, Mono, Riverside, San Bernardino, and San Diego Counties. Within these counties, the CDNPA prohibits the harvest, transport, sale, or possession of specific native desert plants unless a person has a valid permit or wood receipt, and the required tags and seals. The appropriate permits, tags, and seals must be obtained from the sheriff or commissioner of the county where collecting will occur, and the

county will charge a fee. More information on the CDNPA, including the species protected under the law, is available by reading the provisions of the law.

Local

Town of Apple Valley General Plan

The Town's Biological Resources Element (Town of Apple Valley 2009) contain goals and policies that address biological resources. The following goals and policies pertain to biological resources and are relevant to the Project:

Goal 1:. Establish a pattern of community development that supports a functional, productive, and balanced relationship between the manmade environment and the natural environment.

Policy 1.A: Habitat for endangered, threatened, and sensitive species shall continue to be protected and preserved as Open Space by the Town.

Policy 1.B: The Town shall promote the use of native vegetation for landscaping to enhance and create viable habitat for local species.

Policy 1.C: The Town shall continue to promote biodiversity by protecting natural communities with high habitat value, protecting habitat linkages to prevent further fragmentation, and encouraging an appreciation for the natural environment and biological resources.

Goal 2: The Town shall work with local, state, and regional agencies to protect, preserve, and manage biological resources, especially threatened, endangered, and sensitive plants and wildlife species and their habitats.

Policy 2.A: The Town shall coordinate with CDFG [California Department of Fish and Game] and USFWS when working on Projects that are proposed to be located within or adjacent to linkage areas or special survey areas.

Policy 2.B: The Town shall support and cooperate with other agencies in establishing multiple use corridors that link open space areas through drainage channels and utility easements, thereby encouraging the connectivity of natural communities.

Policy 2.C: The Town shall work with CDFG and the USFWS to approve and implement a MSHCP [Multiple Species Habitat Conservation Plan] for the Town and Sphere of Influence.

Policy 2.D: The Town shall work with CDFG and USFWS to ensure that state and federal protections required by the Migratory Bird Treaty Act addressed during the planning process.

Policy 2.E: The Town shall work with CDFG, RWQCB and ACOE [USACE] to ensure that state and federal jurisdictional areas are properly identified.

Apple Valley Municipal Code – Chapter 9.76 – Plant Protection and Management Policy

Chapter 9.76 of the Apple Valley Municipal Code contains the Town's Protected Plant Policies (Town of Apple Valley. 2022). This chapter establishes policies governing the removal of protected plants, including the following:

1. The following desert native plants with stems two inches or greater in diameter or six feet or greater in height:
   a. *Dalea spinosa* (smoketree);
   b. All species of the family *Agavaceae* (century plants, nolinas, yuccas). Including the following known to Apple Valley:
      i. Mohave Yucca (*Yucca schidigera*)
      ii. Lords candle (*Yucca whipplei*)
      iii. Barrel cactus (*Ferocactus acanthodes*)
   c. All species of the genus *Prosopis* (mesquites).
2. Creosote rings, ten feet or greater in diameter.
3. All Joshua trees (mature and immature).
4. All plants protected or regulated by the California Desert Native Plants Act.

Additionally, Section 9.76.010 of the Apple Valley Municipal Code states the following:

> Prior to the issuance of a native tree or plant removal permit in conjunction with a development permit and/or approval of a land use application which authorizes such removal, a plot plan shall be approved by the appropriate Town Review Authority (County Certified Plant Expert, Planning Commission or Town Council) for each site indicating exactly which trees or plants are authorized to be removed. The required information can be added to any other required plot plan.
>
> Prior to issuance of development permits in areas with native trees or plants that are subject to the provisions of this Chapter, a pre-construction inspection shall be conducted by the appropriate authority.

Findings for Removals of Desert Native Plants

Per Apple Valley Municipal Code Section 9.76.010:

> The Reviewing Authority shall authorize the removal of a native tree or plant subject to provisions of this Chapter only if the following findings are made:
>
> A. The removal of the native tree or plant does not have a significant adverse impact on any proposed mitigation measures, soil retention, soil erosion and sediment control measures, scenic routes, flood and surface water runoff and wildlife habitats.
> B. The removal of the native tree or plant is justified for one of the following reasons:
>   a. The location of the native tree (excluding Joshua Trees) or plant and/or its dripline interferes with the reasonable improvement of the site with an allowed structure, sewage disposal area, paved area or other approved improvement or ground disturbing activity. Also such improvements have been designed in such a manner as to save as many healthy native trees and/or plants as reasonably practicable in conjunction with the proposed improvements.

b. The location of the native tree or plant and/or its dripline interferes with the planned improvement of a street or development of an approved access to the subject or adjoining private property.
c. The location of the native tree or plant is hazardous to pedestrian or vehicular travel or safety as determined by the Town Engineer.
d. The native tree or plant or its presence interferes with or is causing extensive damage to utility services or facilities, roadways, sidewalks, curbs, gutters, pavement, sewer line(s), drainage or flood control improvements, foundations, existing structures, or municipal improvements.
e. The condition or location of the native plant or tree is adjacent to and in such close proximity to an existing structure that the native plant or tree has or will sustain significant damage.

Findings for Transplanting of Desert Native Plants

Per Apple Valley Municipal Code Section 9.76.010:

> The Town Manager, or designee, or other Reviewing Authority, shall only authorize the transplanting of desert native plants … subject to the provisions of this Chapter only if one or more of the following findings are made:

1. The desert native plants are to be transplanted in a manner approved by the Town Manager, or designee, or other Reviewing Authority, including any requirement for the issuance of plant tag seals and/or wood receipts.
2. The desert native plant is to be transplanted to another property within the same plant habitat under the supervision of a Desert Native Plant Expert and the removal of such plant will not adversely affect the desert environment on the subject site.
3. Any desert native plant on the site which is determined by the Town Manager, or designee, or other Reviewing Authority, as requiring transplanting has or will be transplanted or stockpiled for transplanting in accordance with methods approved by Town Manager, or designee. A Desert Native Plant Expert shall supervise and manage any required transplanting of desert native plants.

Protection of Joshua Trees

As stated in Section 9.76.040, existing Joshua Trees shall not be:

> disturbed, moved (transplanted or otherwise), removed or destroyed unless such disturbance, move, removal or destruction is first reviewed and approved by the Town of Apple Valley. The Town Manager, or designee, shall be responsible for review and approval of any request to disturb, move (transplant or otherwise), remove or destroy any existing Joshua Tree located on any property within any zoning district in the Town of Apple Valley. Forms for such review shall be available within the Planning Division.

Section 9.76.040 also states that:

> Anyone submitting an application to disturb, move, remove or destroy an existing Joshua Tree shall use all means necessary to retain and preserve such Tree(s) in its native (present) location in considering and presenting said Tree Disturbance application. This application shall take into

> consideration lot configuration, potential property development (buildable envelope), onsite circulation and all associated and related infrastructure needed to support construction within the buildable envelope. Further, persons submitting an application for a discretionary review or for any subdivision of land within the Town of Apple Valley upon which a Joshua Tree(s) is present, shall use all reasonable means available to retain and preserve the Tree(s) in its native (present) location in considering and presenting said application or subdivision request with regard to lot location and configuration, potential property development (buildable envelope), circulation system and all associated and related infrastructure.

Retention in Place of Joshua Trees

As stated in Section 9.76.040, "Joshua Tree(s) which conforms to the following [criteria] shall be preserved in place unless its removal, transplantation or destruction is approved as prescribed within this Section 9.76.040 of the Town of Apple Valley Municipal Code." The criteria are as follows:

1. A Joshua Tree that is known, by historic record, including pictures or written description, to be at least forty (40) years old.
2. A Joshua Tree which has a width of at least fifteen (15) feet as measured from the furthest point of outstretched branches (measured parallel to the ground).
3. A Joshua Tree which is at least fifteen (15) feet in height as measured from the base of the trunk to the highest point of the Tree.
4. A Joshua Tree which has a trunk measuring at least twelve (12) inches in diameter as measured four (4) feet from the ground.

Joshua Trees that do not conform to the above criteria must be preserved but may be transplanted to another location on the same property or may be made available for adoption through the Town's Joshua Tree Preservation and Adoption Program.

Additionally, Section 9.76.040 states:

> For any Joshua Tree(s) which conform to the criteria listed [above], for which the property owner/applicant has made a request for a Building Permit, application for a discretionary review or application for a subdivision of land within the Town of Apple Valley, said owner/applicant shall submit, as part of the application for approval, documentation of their best efforts to retain and preserve all Joshua Tree(s) within the limits of the development or subdivision in its native (present) location. Such documentation of best effort shall include how alternative lot configurations (including building envelopes on lots with existing Tree(s)), circulation, physical or environmental constraints of the site, allow no alternative subdivision configuration which would retain and preserve the Tree(s) in its native (present) location.

Transplanting of Joshua Trees

Section 9.76.040 states that a Desert Native Plant Expert (i.e., a California Agricultural Biologist, Registered Forester, International Society of Arboriculture [ISA] Certified Arborist, County-Certified Plant Expert, or others

approved by the Town's Building Official) must supervise the initiation and completion of Town-approved transplanting of Joshua trees. Per Section 9.76.040:

> Approval of such transplant must take into consideration the time of year, the plant's original and transplanted physical orientation, prevailing wind direction, soil type of the original and transplanted locations, and other related attributes which may affect the successful transplantation of the Joshua Tree(s) in question as determined by the Town and the retained Botanist.
>
> Joshua Trees that are proposed to be removed shall be transplanted or stockpiled for future transplanting wherever possible. In the instance of stockpiling and/or transplanting the permittee has submitted and has had the approval of a Joshua Tree maintenance plan prepared by a Desert Native Plant Expert. This plan shall include a schedule for maintenance and a statement by the Desert Native Plant Expert that this maintenance plan and schedule will be implemented under his/her supervision. The schedule shall include the requirement that a maintenance report is required at the end of the Project or at six (6) month intervals, evidence to the satisfaction of the Building Official that the Desert Native Plant Expert has supervised the scheduled maintenance to the extent that all transplanted and stockpiled plants have been maintained in such a manner to insure the highest practicable survival rate. In the event that this report is not satisfactory, a tree and plant replacement plan and implementation schedule prepared by a Desert Native Plant Expert may be required by the Building Official.

Findings for Removal of Joshua Trees

As stated in Section 9.76.040:

> The Reviewing Authority shall authorize the removal of a Joshua Tree(s) subject to provisions of this Chapter only if the following findings are made:
>
> 1. The removal of the Joshua Tree(s) does not have a significant adverse impact on any proposed mitigation measures, soil retention, soil erosion and sediment control measures, scenic routes, flood and surface water runoff and wildlife habitats.
> 2. The removal of the Joshua Tree(s) is justified for one of the following reasons:
>   a. The location of the Joshua Tree(s) or its dripline interferes with the reasonable improvement of the site with an allowed structure, sewage disposal area, paved area or other approved improvement or ground disturbing activity as determined by the Town Manager, or designee. Also such improvements have been designed in such a manner as to save as many healthy native trees and/or plants as reasonably practicable in conjunction with the proposed improvements.
>   b. The location of the native tree or plant and/or its dripline interferes with the planned improvement of a street or development of an approved access to the subject to adjoining private property.
>   c. The location of the native tree or plant is hazardous to pedestrian or vehicular travel or safety as determined by the Town Engineer.
>   d. The native tree or plant, because of its presence, interferes with or is causing extensive damage to utility services or facilities, roadways, sidewalks, curbs, gutters, pavement,

sewer line(s), drainage or flood control improvements, foundations, existing structures, or municipal improvements.

e. The condition or location of the native plant or tree is adjacent to and in such close proximity to an existing or proposed structure that the native plant or tree has or will sustain significant damage.

4.3.3 Thresholds of Significance

The significance criteria used to evaluate the Project impacts to biological resources are based on CEQA Guidelines Appendix G. Potential Project-related impacts analyzed in this section account for biological resources that occur or have the potential to occur on the Project site and the off-site improvement areas. According to CEQA Guidelines Appendix G, a significant impact related to biological resources would occur if the Project 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. Fish and Wildlife Service.

C. Have a substantial adverse effect on state or federally protected wetlands (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 native resident or migratory fish or wildlife species or with established native resident or 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.

F. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

G. Result in cumulatively considerable impacts to biological resources.

4.3.4 Impacts Analysis

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?

Less-than-Significant Impact with Mitigation Incorporated. The following section evaluates the Project's potential direct and indirect effects on plant and wildlife species identified as candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.

Special-Status Plant Species

Direct Impacts

Non-Listed Special-Status Plant Species and Western Joshua Tree

No non-listed special-status plant species were observed during the focused surveys conducted in April and May 2023; therefore, the Project would have no direct impacts to non-listed special-status plant species within the BSA. The BSA does not occur within federally designated critical habitat for special-status plant species, and there would be no direct impacts to critical habitat.

One listed special-status plant species, western Joshua tree, was observed within the BSA, and this species is further discussed below.

Western Joshua Tree

In total, 298 western Joshua tree individuals were observed within the Joshua tree inventory survey area (Project site plus off-site improvements and associated 50-foot buffer). Of the 298 trees found within the western Joshua tree inventory survey area, 283 western Joshua tree individuals are within the Project site plus off-site improvements area, with the remaining 15 western Joshua tree individuals located within the 50-foot Joshua tree inventory survey area buffer. Further details on phenological data of the 298 western Joshua tree individuals observed is provided in Appendix C of Appendix C-1.

Western Joshua tree, a candidate for state listing under CESA, was observed and would be directly impacted by the Project. Based on the site plan, implementation of the Project would result in direct impacts to 283 western Joshua tree individuals. All ground-disturbing activities, even areas temporarily impacted, are considered permanent impacts to western Joshua trees. Direct impacts to western Joshua tree are considered significant absent mitigation under CEQA.

Based on the WJTCA, Fish and Game Code Section 1927.3 requires the applicant to mitigate by paying the statutorily prescribed fees. Trees located in the area described in Fish and Game Code Section 1927.3 (e) are in the reduced fee area; therefore, impacts to western Joshua tree can be mitigated on a per-tree basis as follows:

- Five meters or greater in height - $1,000
- One meter or greater but less than five meters in height - $200
- less than one meter in height - $150

The Project would result in direct impacts to four Joshua trees that are 5 meters or greater in height, 201 trees 1 meter or greater but less than 5 meters in height, and 78 trees less than 1 meter in height.

As required by **MM-BIO-1** (Conservation of Western Joshua Tree Lands), mitigation for direct impacts to 283 individuals would be fulfilled through compliance with the WJTCA. Additionally, as required by **MM-BIO-2** (Relocation of Desert Native Plants) and in accordance with Chapter 9.76 of the Apple Valley Municipal Code, the preparation of a western Joshua tree and desert native plants relocation plan is required to mitigate impacts to western Joshua trees as a result of the Project. As such, a Joshua Tree Preservation, Protection, and Relocation Plan, and California Desert Native Plant Relocation Plan (Appendix C of Appendix C-1) was prepared to provide detailed specifications for the Project applicant to protect, preserve, and mitigate impacts to western Joshua trees. In addition,

implementation of **MM-BIO-3** (Designated Biologist Authority), **MM-BIO-4** (Compliance Monitoring), **MM-BIO-5** (Education Programs), and **MM-BIO-6** (Construction Monitoring Notebook) would reduce potential direct impacts to less than significant.

Implementation of **MM-BIO-1** (Conservation of Western Joshua Tree Lands), **MM-BIO-2** (Relocation of Desert Native Plants), **MM-BIO-3** (Designated Biologist Authority), **MM-BIO-4** (Compliance Monitoring), **MM-BIO-5** (Education Programs), and **MM-BIO-6** (Construction Monitoring Notebook) would reduce potential direct impacts to western Joshua trees to less than significant.

Indirect Impacts

Non-Listed Special-Status Plant Species and Western Joshua Tree

In total,15 western Joshua trees were mapped within the 50-foot survey buffer and the Project may result in indirect impacts to western Joshua tree. Short-term construction related indirect impacts and long-term operational indirect impacts to western Joshua tree are further discussed below.

Short-Term Construction Impacts

Construction-related, short-term indirect impacts may include inadvertent spillover impacts outside of the construction footprint, dust accumulation on Joshua trees, chemical spills, stormwater erosion and sedimentation, and increased wildfire risk.

Implementation of **MM-BIO-3** (Designated Biologist Authority) gives the Project's designated biologist the authority to stop work if construction is not compliant with this CEQA document. **MM-BIO-4** (Compliance Monitoring) requires that an experienced biologist oversee compliance with the protective measures, including limiting impacts to the Project footprint. **MM-BIO-5** (Education Program) would provide construction personnel with training related to special-status plants that could potentially occur on or adjacent to the impact footprint. **MM-BIO-6** (Construction Monitoring Notebook) provides for documentation that the education program was administered to applicable personnel. **MM-BIO-7** (Delineation of Project Boundaries) requires that impacts occur within the fenced, staked, or flagged area that is clearly delineated within the Project impact footprint. The construction crew would be responsible for unauthorized impacts from construction activities to special-status plants that are outside the permitted Project footprint. Thus, implementation of **MM-BIO-4** through **MM-BIO-7** would help to avoid and minimize inadvertent spillover impacts outside of the approved impact footprint.

To reduce fugitive dust resulting from Project construction and to minimize adverse air quality impacts, the Project would employ dust mitigation measures in accordance with the Mojave Desert Air Quality Management District's Rules 401 and 403.2, which limit the amount of fugitive dust generated during construction.

MM-BIO-8 (Hazardous Waste) would ensure that a prompt and effective response to any accidental chemical spills would be implemented, and that repair and clean-up of any hazardous waste occurs. Thus, implementation of **MM-BIO-8** (Hazardous Waste) would help to avoid and minimize impacts to special-status plants from any construction-related chemical spills.

A Stormwater Pollution Prevention Plan (SWPPP) is required under the National Pollution Discharge Elimination System (NPDES) for ground disturbing activities impacting more than 1 acre. A SWPPP would be prepared and implemented to prevent all construction pollutants from contacting stormwater during construction activities, with

the intent of keeping sediment and any other pollutants from moving off site and into receiving waters. Best management practice (BMP) categories employed on site would include erosion control, sediment control, and non-stormwater good housekeeping. Preparation and implementation of a SWPPP would help to avoid and minimize the potential effects of stormwater erosion during construction.

Construction of the Project would introduce potential ignition sources to the Project site, including the use of heavy machinery and the potential for sparks during welding activities or other hot work. However, the Project would be required to comply with Town and state requirements for fire safety practices to reduce the possibility of fires during construction activities. Further, vegetation would be removed from the site prior to the start of construction. Adherence to Town and state regulatory standards during Project construction would reduce the risk of wildfire ignition and spread during construction activities. Therefore, short-term construction impacts involving wildland fires would not be substantial.

Long-Term Operational Impacts

Potential long-term (post-construction) indirect impacts from operation and maintenance activities may include effects of herbicides, changes in water quality, increased wildfire risk, induced demand of the surrounding area, increased traffic and vehicle emissions, and accidental chemical spills. Indirect impacts to western Joshua trees would be significant absent mitigation.

Implementation of **MM-BIO-9** (Herbicides) would limit herbicide use to instances where hand or mechanical efforts are infeasible and would only be applied when wind speeds are less than 7 miles per hour to prevent drift into off-site special-status plants.

Implementation of low-impact-development features and BMPs would, to the maximum extent practicable, reduce the discharge of pollutants into receiving waters, including inadvertent release of pollutants (e.g., hydraulic fluids and petroleum); the improper management of hazardous materials, trash, and debris; and the improper management of portable restroom facilities (e.g., regular service) in accordance with all relevant local and state development standards. In addition, in accordance with CALGreen requirements (California Green Building Standards Code, CCR, Title 24, Part 11), Project source controls to improve water quality would be provided for outdoor material storage areas, outdoor trash storage/waste handling areas, and outdoor loading/unloading areas. Therefore, impacts to special-status plants due to changes in water quality would be avoided and minimized through implementation of low-impact-development features and BMPs.

Upon completion of Project construction, with adherence to the Town of Apple Valley Municipal Code, and because of the low ignitability of the proposed structures and implementation of fire-resistant and irrigated landscaping, the Project would not facilitate wildfire spread or exacerbate wildfire risk. Further, given that surrounding off-site fuels consist of moderately spaced vegetation, wildfires in the immediate surrounding area are not common, and it is unlikely that the Project site would be exposed to the uncontrolled spread of a wildfire. It is not anticipated that the Project, due to slope, prevailing winds, and other factors, would exacerbate wildfire risks or the uncontrolled spread of a wildfire; thus, with adherence to the Town of Apple Valley Municipal Code, long-term indirect impacts to special-status plants associated with increased wildlife risk is not expected to occur.

In summary, implementation of **MM-BIO-3** (Designated Biologist Authority), **MM-BIO-4** (Compliance Monitoring), **MM-BIO-5** (Education Program), **MM-BIO-6** (Construction Monitoring Notebook), **MM-BIO-7** (Delineation of Property Boundaries), **MM-BIO-8** (Hazardous Waste), and **MM-BIO-9** (Herbicides) would reduce potential indirect impacts to western Joshua tree to less than significant.

Special-Status Wildlife

Direct Impacts

Direct impacts can potentially occur to special-status wildlife species from impacts to habitat and impacts to the species from injury or mortality of individuals from construction activities.

The Project could result in significant, direct impacts to six special-status wildlife species that have a moderate potential to occur within the BSA (Mojave desert tortoise, burrowing owl, LeConte's thrasher, loggerhead shrike, pallid bat, and Townsend's big-eared bat). These species are detailed in the following discussion. Focused surveys conducted for Mohave ground squirrel were negative, and habitat for Crotch's bumble bee was determined to be absent; therefore, these two species are not expected to occur and will not be analyzed further.

The BSA does not occur within federally designated critical habitat for special-status wildlife species, and there would be no direct impacts to critical habitat.

Mojave Desert Tortoise

Protocol surveys completed in May 2022, April 2023, and June 2023 resulted in no observations of active desert tortoise burrows or individual desert tortoises. However, there was one incidence of what is potentially desert tortoise scat within the BSA. The BSA contains suitable sandy soils, ephemeral washes, and creosote scrub to support this species. In addition, the nearest CNDDB occurrence was from 2005 and is mapped approximately 1 mile south of the BSA (CDFW 2023b), and the BSA is within a high probability predicted habitat for the species (CDFW 2023c). Therefore, based on the discussion above, and because Mojave desert tortoise is a mobile species that could enter the BSA prior to construction, this species was determined to have a moderate potential to occur, and potential direct and indirect impacts to Mojave desert tortoise would be significant absent mitigation under CEQA.

A pre-construction Mojave desert tortoise clearance survey in compliance with current USFWS protocol would be necessary to reevaluate the locations of potential Mojave desert tortoise burrows within the Project limits so take of Mojave desert tortoise can be avoided. Consistent with **MM-BIO-10** (Pre-construction Clearance Surveys for Mojave Desert Tortoise and Avoidance), a pre-construction clearance survey for Mojave desert tortoise would be conducted in areas supporting potentially suitable habitat 14 to 21 days prior to the start of construction activities; or, alternatively, pre-construction clearance surveys may be conducted following construction of a desert-tortoise-proof fence encompassing the Project site that would ensure that tortoises cannot enter the Project after clearance surveys are completed. Should Mojave desert tortoises be located during the clearance survey, additional measures in compliance with current USFWS protocol would be required, as described further in **MM-BIO-10** (Pre-construction Clearance Surveys for Mojave Desert Tortoise and Avoidance). In addition, implementation of **MM-BIO-3** (Designated Biologist Authority), **MM-BIO-4** (Compliance Monitoring), **MM-BIO-5** (Education Programs), and **MM-BIO-6** (Construction Monitoring Notebook) would reduce potential direct impacts to less than significant.

Should Mojave desert tortoise be located during the clearance survey, the Project would result in the permanent loss of 165.4 acres of suitable habitat for Mojave desert tortoise, consisting of total vegetation impacts to creosote bush scrub, rubber rabbitbrush scrub, and disturbed habitat. These direct permanent impacts would be significant absent mitigation. As required by **MM-BIO-10** (Pre-construction Clearance Surveys for Mojave Desert Tortoise and Avoidance), mitigation for direct impacts to 165.4 acres, should Mojave desert tortoise be found during pre-construction clearance surveys, would be fulfilled through conservation of suitable Mojave desert tortoise habitat through the purchase of credits at a minimum of 1:1 in-kind habitat replacement.

Additionally, as required by **MM-BIO-1**, mitigation for direct impacts to 283 western Joshua trees will be fulfilled through a payment of fees consistent with the WJTCA. Conservation efforts for western Joshua tree will focus on the conservation of large, interconnected Joshua tree woodlands on lands where edge effects are limited, versus lands in urban settings that are subject to habitat fragmentation and edge effects, such as the Project site. Thus, mitigation for impacts to western Joshua tree would also mitigate for loss of suitable habitat for desert tortoise, which use similar habitat.

In summary, implementation of **MM-BIO-1** (Conservation of Western Joshua Tree Lands), **MM-BIO-3** (Designated Biologist Authority), **MM-BIO-4** (Compliance Monitoring), **MM-BIO-5** (Education Program), **MM-BIO-6** (Construction Monitoring Notebook), and **MM-BIO-10** (Pre-construction Clearance Surveys for Mojave Desert Tortoise and Avoidance) would reduce potential direct impacts (permanent and temporary) to Mojave desert tortoise to less than significant.

Burrowing Owl

Although focused surveys for burrowing owl conducted in April, May, and June 2023 were negative, several suitable burrows were mapped within the BSA. Burrowing owl is a transient species and could potentially occupy the BSA prior to construction. Potential direct and indirect impacts to burrowing owl would be significant absent mitigation under CEQA.

Pursuant to the California Fish and Game Code and the MBTA, a pre-construction survey in compliance with the Staff Report on Burrowing Owl Mitigation (CDFW 2012) would be necessary to reevaluate the locations of potential burrowing owl burrows located within the Project limits so take of owls or active owl nests can be avoided. Consistent with **MM-BIO-11** (Pre-construction Surveys for Burrowing Owl and Avoidance), pre-construction surveys for burrowing owl shall be conducted in areas supporting potentially suitable habitat with the first survey no less than 14 days prior to the start of construction activities, and the second within 24 hours of start of construction. A burrowing owl relocation plan has been prepared to facilitate implementation of this mitigation measure (Appendix C-2). In addition, implementation of **MM-BIO-3** (Designated Biologist Authority), **MM-BIO-4** (Compliance Monitoring), **MM-BIO-5** (Education Program), and **MM-BIO-6** (Construction Monitoring Notebook) would reduce potential direct impacts to a less-than significant level.

Furthermore, should burrowing owl be located during the pre-construction survey, the Project would result in the loss of 165.4 acres of suitable habitat for burrowing owl, consisting of total vegetation impacts to creosote bush scrub, rubber rabbitbrush scrub, and disturbed habitat. These direct permanent impacts would be significant absent mitigation. As required by **MM-BIO-11** (Pre-construction Surveys for Burrowing Owl Avoidance), mitigation for direct impacts to 165.4 acres, should burrowing owl be found during pre-construction surveys, would be fulfilled through conservation of suitable burrowing owl habitat through the purchase of credits at a minimum of 1:1 in-kind habitat replacement.

Additionally, as required by **MM-BIO-1**, mitigation for direct impacts to 283 western Joshua trees will be fulfilled through a payment of fees consistent with the WJTCA. Conservation efforts for western Joshua tree will focus on the conservation of large, interconnected Joshua tree woodlands on lands where edge effects are limited, versus lands in urban settings that are subject to habitat fragmentation and edge effects, such as the Project site. Thus, mitigation for impacts to western Joshua tree would also mitigate for loss of suitable habitat for burrowing owl, which use similar habitat.

In summary, implementation of **MM-BIO-1** (Conservation of Western Joshua Tree Lands), **MM-BIO-3** (Designated Biologist Authority), **MM-BIO-4** (Compliance Monitoring), MM-BIO-5 (Education Program), **MM-BIO-6** (Construction

Monitoring Notebook), and **MM-BIO-11 (**Pre-construction Surveys for Burrowing Owl and Avoidance) would reduce potential direct impacts (permanent and temporary) to burrowing owl to less than significant.

LeConte's Thrasher

LeConte's thrasher was not observed during the biological resource surveys; however, this species has a moderate potential to occur within the BSA. Extensive suitable nesting habitat, particularly western Joshua trees, yucca, cholla, and other desert shrubs, are present within the BSA.

To avoid potential impacts to nesting LeConte's thrasher, vegetation removal activities would be conducted outside the general bird nesting season (February 1 through August 31). If vegetation cannot be removed outside the bird nesting season, a pre-construction nesting bird survey by a qualified biologist is required prior to vegetation removal. This requirement is outlined in **MM-BIO-12** (Pre-construction Nesting Bird Surveys and Avoidance).

The Project would also result in the loss of approximately 156.0 acres of suitable habitat for LeConte's thrasher (i.e., total vegetation impacts to creosote bush scrub and rubber rabbitbrush scrub). As required by **MM-BIO-1**, mitigation for direct impacts to 283 western Joshua trees will be fulfilled through a payment of fees consistent with the WJTCA. Conservation efforts for western Joshua tree will focus on the conservation of large, interconnected Joshua tree woodlands on lands where edge effects are limited, versus lands in urban settings that are subject to habitat fragmentation and edge effects, such as the Project site. Thus, mitigation for impacts to western Joshua tree would also mitigate for loss of suitable habitat for LeConte's thrasher, which use similar habitat; the loss of 156.0 acres of suitable habitat for LeConte's thrasher would be considered less than significant.

In summary, implementation of **MM-BIO-12** (Pre-construction Nesting Bird Surveys and Avoidance) and **MM-BIO-1** (Conservation of Western Joshua Tree Lands) would reduce potential direct impacts to LeConte's thrasher to less than significant.

Loggerhead Shrike

Loggerhead shrike was not observed during the biological resource surveys; however, this species has a moderate potential to occur within the BSA. Extensive suitable nesting habitat, particularly western Joshua trees, is present within the BSA.

To avoid potential impacts to nesting loggerhead shrike, vegetation removal activities would be conducted outside the general bird nesting season (February 1 through August 31). If vegetation cannot be removed outside the bird nesting season, a pre-construction nesting bird survey by a qualified biologist is required prior to vegetation removal. This requirement is outlined in **MM-BIO-12** (Pre-construction Nesting Bird Surveys and Avoidance).

The Project would also result in the permanent loss of 156.0 acres of suitable habitat for loggerhead shrike (i.e., total vegetation impacts to creosote bush scrub and rubber rabbitbrush scrub). As required by **MM-BIO-1**, mitigation for direct impacts to 283 western Joshua trees will be fulfilled through a payment of fees consistent with the WJTCA. Conservation efforts for western Joshua tree will focus on the conservation of large, interconnected Joshua tree woodlands on lands where edge effects are limited, versus lands in urban settings that are subject to habitat fragmentation and edge effects, such as the Project site. Thus, mitigation for impacts to western Joshua tree would also mitigate for loss of suitable habitat for loggerhead shrike, which use similar habitat; the loss of 156.0 acres of suitable habitat for loggerhead shrike would be considered less than significant.

In summary, implementation of **MM-BIO-12** (Pre-construction Nesting Bird Surveys and Avoidance) and **MM-BIO-1** (Conservation of Western Joshua Tree Lands) would reduce potential direct impacts to loggerhead shrike to less than significant.

Foraging Bats, Including Pallid Bat and Townsend's Big-Eared Bat

Bat roosting habitat was not observed during the biological resource surveys; however, native bats, including the pallid bat and Townsend's big-eared bat, have a moderate potential to forage across the BSA. As these species are highly mobile and highly maneuverable, and therefore able to avoid construction areas and equipment, no construction impacts would occur due to injury or mortality of individuals.

The Project would result in the permanent loss of 165.4 acres of suitable foraging habitat, consisting of total vegetation impacts to creosote bush scrub, rubber rabbitbrush scrub, and disturbed habitat, for native bats, including the pallid bat and Townsend's big-eared bat. As required by **MM-BIO-1**, mitigation for direct impacts to 283 western Joshua trees will be fulfilled through a payment of fees consistent with the WJTCA. Conservation efforts for western Joshua tree will focus on the conservation of large, interconnected Joshua tree woodlands on lands where edge effects are limited, versus lands in urban settings that are subject to habitat fragmentation and edge effects, such as the Project site. Thus, mitigation for impacts to western Joshua tree would also mitigate for loss of suitable foraging habitat for pallid bat and Townsend's big-eared bat, which use similar habitat; the loss of 165.4 acres of suitable habitat for foraging bats would be considered less than significant.

In summary, implementation of **MM-BIO-1** (Conservation of Western Joshua Tree Lands) would reduce potential direct impacts to foraging bats to less than significant.

Nesting Migratory Birds and Raptors

The BSA contains trees, shrubs, and other vegetation that provides opportunities for birds of prey (raptors) and other avian species to nest on site. Native nesting bird species with potential to occur within the BSA are protected by California Fish and Game Code Sections 3503 and 3503.5 and by the federal MBTA (16 USC 703–711). Section 3503 provides that it is unlawful to take, possess, or needlessly destroy the active nests or eggs of any bird in California; Section 3503.5 protects all raptors and their eggs and active nests; and the MBTA prohibits the take (including killing, capturing, selling, trading, and transport) of native migratory bird species throughout the United States. Currently, California considers any nest that is under construction or modification or is supporting eggs, nestlings, or juveniles as "active." Therefore, impacts to nesting migratory birds and raptors would be considered significant absent mitigation.

To ensure compliance with the California Fish and Game Code and the MBTA and to avoid potential impacts to nesting birds, it is recommended that the vegetation removal activities be conducted outside the general bird nesting season (February 1 through August 31, depending on the species), and if vegetation cannot be removed outside the bird nesting season, a pre-construction nesting bird survey by a qualified biologist is required prior to vegetation removal. This requirement is outlined in **MM-BIO-12** (Pre-construction Nesting Bird Surveys and Avoidance). With the incorporation of mitigation, impacts associated with nesting birds, including raptors, would be less than significant.

In summary, implementation of **MM-BIO-12** (Pre-construction Nesting Bird Surveys and Avoidance) would reduce potential direct impacts to nesting migratory birds and raptors to less than significant.

Indirect Impacts

Indirect impacts to special-status wildlife species are those that occur during construction to species present near the site, but not within the construction zone. These include fugitive dust that can degrade habitat and result in health implications for wildlife species; noise and vibration that can stress wildlife species or cause them to leave an area of otherwise suitable habitat, or that can result in disruption of bird nesting and abandonment of nests; increased human presence, which can also disrupt daily activities of wildlife and cause them to leave an area; nighttime lighting, which can disrupt the activity patterns of nocturnal species, including many mammals and some birds, amphibians, and reptiles; and release of chemical pollutants, such as from oil leaks from construction vehicles and machinery.

The Project could result in significant, indirect impacts to six special-status wildlife: Mojave desert tortoise, burrowing owl, LeConte's thrasher, loggerhead shrike, pallid bat, and Townsend's big-eared bat. Therefore, these species are further discussed below.

Mojave Desert Tortoise

Mojave desert tortoise is not expected to occur within the BSA due to the negative survey results; however, this species may enter the site, albeit there is a low potential, before construction begins. Therefore, a pre-construction protocol clearance survey is needed to confirm Mojave desert tortoise absence prior to construction. Should Mojave desert tortoise occur on site, construction activities have the potential to result in significant indirect impacts to Mojave desert tortoise and their habitat. Those impacts could include dust, noise, and vibration; trash and debris; increased human presence; vehicle collisions; and chemical spills. These potential short-term or temporary indirect impacts to Mojave desert tortoise would be significant absent mitigation.

MM-BIO-10 (Pre-construction Clearance Surveys for Mojave Desert Tortoise and Avoidance) would require pre-construction protocol clearance surveys for Mojave desert tortoise to limit effects from most short-term indirect impacts, including noise and vibration, increased human presence, nighttime lighting, and vehicle collisions. **MM-BIO-3** (Designated Biologist Authority), **MM-BIO-4** (Compliance Monitoring), **MM-BIO-5** (Education Program), and **MM-BIO-6** (Construction Monitoring Notebook) would require that all workers complete Worker Environmental Awareness Program (WEAP) training and would require ongoing biological monitoring and compliance with all biological resource mitigation requirements. **MM-BIO-8** (Hazardous Waste) would ensure that a prompt and effective response to any accidental chemical spills would be implemented, and that repair and clean-up of any hazardous waste occurs. To reduce fugitive dust resulting from Project construction and to minimize adverse air quality impacts, the Project would employ dust mitigation measures in accordance with the Mojave Desert Air Quality Management District's Rules 401 and 403.2, which would limit the amount of fugitive dust generated during construction. **MM-BIO-14** (Trash and Debris) would require trash and debris to be removed regularly and would require animal-resistant trash receptacles to avoid attracting urban-related predator species.

Potential long-term indirect impacts that could result from development within or adjacent to Mojave desert tortoise habitat include increased invasive plant species that may degrade habitat. **MM-BIO-14** (Invasive Plant Management) would require that landscape plants within 200 feet of native vegetation communities not be on the most recent version of the California Invasive Plant Council's (Cal-IPC) California Invasive Plant Inventory (Cal-IPC 2006).

As discussed above, implementation of **MM-BIO-3** (Designated Biologist Authority), **MM-BIO-4** (Compliance Monitoring), **MM-BIO-5** (Education Program), **MM-BIO-6** (Construction Monitoring Notebook), **MM-BIO-8** (Hazardous Waste), **MM-BIO-10** (Pre-construction Clearance Surveys for Mojave Desert Tortoise and Avoidance), **MM-BIO-13**

(Trash and Debris), and **MM-BIO-14** (Invasive Plant Management) would reduce potential indirect (short-term and long-term) impacts to Mojave desert tortoise to less than significant.

Burrowing Owl

Short-Term Construction Impacts

Should burrowing owls occur on site, construction activities have the potential to result in short-term indirect impacts to burrowing owls and their habitat. Those impacts could include dust, noise, and vibration; trash and debris; increased human presence; vehicle collisions; chemical spills; and nighttime lighting. These potential short-term or temporary indirect impacts to burrowing owls are considered significant absent mitigation.

MM-BIO-11 (Pre-construction Surveys for Burrowing Owl and Avoidance) would require pre-construction burrowing owl surveys and result in establishment of construction buffers around any burrowing owl burrows found, thus limiting effects from most short-term indirect impacts, including noise and vibration, increased human presence, nighttime lighting, and vehicle collisions. **MM-BIO-3** (Designated Biologist Authority), **MM-BIO-4** (Compliance Monitoring), **MM-BIO-5** (Education Program), and **MM-BIO-6** (Construction Monitoring Notebook) would require that all workers complete WEAP training and would require ongoing biological monitoring and compliance with all biological resource mitigation. **MM-BIO-8** (Hazardous Waste) would ensure that a prompt and effective response to any accidental chemical spills would be implemented, and that repair and clean-up of any hazardous waste occurs. To reduce fugitive dust resulting from Project construction and to minimize adverse air quality impacts, the Project would employ dust mitigation measures in accordance with the Mojave Desert Air Quality Management District's Rules 401 and 403.2, which would limit the amount of fugitive dust generated during construction. **MM-BIO-14** (Trash and Debris) would require trash and debris to be removed regularly and would require animal-resistant trash receptacles to avoid attracting urban-related predator species. **MM-BIO-15** (Lighting) would require nighttime lighting during construction within 50 feet of habitat for special-status species to be shielded downward.

Long-Term Operational Impacts

Potential long-term indirect impacts that could result from development within or adjacent to burrowing owl habitat include nighttime lighting and increased invasive plant species that may degrade habitat. **MM-BIO-14** (Invasive Plant Management) would require that landscape plants within 200 feet of native vegetation communities not be on the most recent version of Cal-IPC's California Invasive Plant Inventory (Cal-IPC 2006). **MM-BIO-15** (Lighting) would require nighttime lighting during operations within 50 feet of habitat for special-status species to be shielded downward.

As discussed above, implementation of **MM-BIO-3** (Designated Biologist Authority), **MM-BIO-4** (Compliance Monitoring), **MM-BIO-5** (Education Program), **MM-BIO-6** (Construction Monitoring Notebook), **MM-BIO-8** (Hazardous Waste), **MM-BIO-11** (Pre-construction Surveys for Burrowing Owl and Avoidance), **MM-BIO-13** (Trash and Debris), **MM-BIO-14** (Invasive Plant Management), and **MM-BIO-15** (Lighting) would reduce potential indirect (short-term and long-term) impacts to burrowing owl to less than significant..

LeConte's Thrasher

Short-Term Construction Impacts

Construction (short-term) activities have the potential to result in indirect impacts to LeConte's thrasher and its habitat. Those impacts could include dust, noise, vibration, increased human presence, vehicle collisions, chemical

spills, and nighttime lighting. These potential short-term or temporary indirect impacts to loggerhead shrike would be significant absent mitigation.

MM-BIO-12 (Pre-construction Nesting Bird Surveys and Avoidance) would require nesting bird surveys and would result in establishment of construction buffers around nests, thus limiting effects from most short-term indirect impacts, including noise and vibration, increased human presence, nighttime lighting, and vehicle collisions. **MM-BIO-3** (Designated Biologist Authority), **MM-BIO-4** (Compliance Monitoring), **MM-BIO-5** (Education Program), and **MM-BIO-6** (Construction Monitoring Notebook) would require that all workers complete WEAP training and would require ongoing biological monitoring and compliance with all biological resource mitigation requirements. **MM-BIO-8** (Hazardous Waste) would ensure that a prompt and effective response to any accidental chemical spills be implemented, and that repair and clean-up of any hazardous waste occurs. To reduce fugitive dust resulting from construction and to minimize adverse air quality impacts, the Project would employ dust mitigation measures in accordance with the Mojave Desert Air Quality Management District's Rules 401 and 403.2, which would limit the amount of fugitive dust generated during construction. **MM-BIO-15** (Lighting) would require nighttime lighting during construction within 50 feet of habitat for special-status species to be shielded downward.

Long-Term Operational Impacts

Post-construction (long-term) activities have the potential to result in indirect impacts to LeConte's thrasher and their habitat. Long-term indirect impacts that could result from development within or adjacent to LeConte's thrasher habitat include nighttime lighting and increased invasive plant species that may degrade habitat. These potential long-term indirect impacts to LeConte's thrasher would be significant absent mitigation.

Potential long-term indirect impacts that could result from development within or adjacent to LeConte's thrasher habitat include nighttime lighting and increased invasive plant species that may degrade habitat. **MM-BIO-14** (Invasive Plant Management) would require that landscape plants within 200 feet of native vegetation communities not be on the most recent version of Cal-IPC's Inventory of Invasive Plants (Cal-IPC 2006). **MM-BIO-15** (Lighting) would require nighttime lighting during operations within 50 feet of habitat for special-status species to be shielded downward.

As discussed above, implementation of **MM-BIO-3** (Designated Biologist Authority), **MM-BIO-4** (Compliance Monitoring), **MM-BIO-5** (Education Program), **MM-BIO-6** (Construction Monitoring Notebook), **MM-BIO-8** (Hazardous Waste), **MM-BIO-12** (Pre-construction Nesting Bird Surveys and Avoidance), **MM-BIO-14** (Invasive Plant Management), and **MM-BIO-15** (Lighting) would reduce potential indirect (short-term and long-term) impacts to LeConte's thrasher to less than significant.

Loggerhead Shrike

Short-Term Construction Impacts

Construction activities have the potential to result in short-term indirect impacts to loggerhead shrike and their habitat. Those impacts could include dust, noise, and vibration; increased human presence; vehicle collisions; chemical spills; and nighttime lighting. These potential short-term or temporary indirect impacts to loggerhead shrike would be significant absent mitigation.

MM-BIO-12 (Pre-construction Nesting Bird Surveys and Avoidance) would require nesting bird surveys and would result in establishment of construction buffers around nests, thus limiting effects from most short-term indirect impacts, including noise and vibration, increased human presence, nighttime lighting, and vehicle collisions.

MM-BIO-3 (Designated Biologist Authority), **MM-BIO-4** (Compliance Monitoring), **MM-BIO-5** (Education Program), and **MM-BIO-6** (Construction Monitoring Notebook) would require that all workers complete WEAP training and would require ongoing biological monitoring and compliance with all biological resource mitigation. **MM-BIO-8** (Hazardous Waste) would ensure that a prompt and effective response to any accidental chemical spills be implemented, and that repair and clean-up of any hazardous waste occurs. To reduce fugitive dust resulting from construction and to minimize adverse air quality impacts, the Project would employ dust mitigation measures in accordance with the Mojave Desert Air Quality Management District's Rules 401 and 403.2, which would limit the amount of fugitive dust generated during construction. **MM-BIO-15** (Lighting) would require nighttime lighting during construction within 50 feet of habitat for special-status species to be shielded downward.

Long-Term Operational Impacts

Potential long-term indirect impacts that could result from development within or adjacent to loggerhead shrike habitat include nighttime lighting and increased invasive plant species that may degrade habitat. **MM-BIO-14** (Invasive Plant Management) would require that landscape plants within 200 feet of native vegetation communities not be on the most recent version of Cal-IPC's Inventory of Invasive Plants (Cal-IPC 2006). **MM-BIO-15** (Lighting) would require nighttime lighting during operations within 50 feet of habitat for special-status species to be shielded downward.

Implementation of **MM-BIO-3** (Designated Biologist Authority), **MM-BIO-4** (Compliance Monitoring), **MM-BIO-5** (Education Program), **MM-BIO-6** (Construction Monitoring Notebook), **MM-BIO-8** (Hazardous Waste), **MM-BIO-12** (Pre-construction Nesting Bird Surveys and Avoidance), **MM-BIO-14** (Invasive Plant Management), and **MM-BIO-15** (Lighting) would reduce potential indirect (short-term and long-term) impacts to loggerhead shrike to less than significant.

Foraging Bats, Including Pallid Bat and Townsend's Big-Eared Bat

Short-Term Construction Impacts

Construction activities have the potential to result in short-term indirect impacts to foraging bats, including the pallid bat and Townsend's big-eared bat and their habitat. Those impacts could include dust, noise, and vibration; increased human presence; vehicle collisions; chemical spills; and nighttime lighting. These potential short-term or temporary indirect impacts to loggerhead shrike would be significant absent mitigation under CEQA.

MM-BIO-3 (Designated Biologist Authority), **MM-BIO-4** (Compliance Monitoring), **MM-BIO-5** (Education Program), and **MM-BIO-6** (Construction Monitoring Notebook) would require that all workers complete WEAP training and would require ongoing biological monitoring and compliance with all biological resource mitigation. **MM-BIO-8** (Hazardous Waste) would ensure that a prompt and effective response to any accidental chemical spills be implemented, and that repair and clean-up of any hazardous waste occurs. To reduce fugitive dust resulting from construction and to minimize adverse air quality impacts, the Project would employ dust mitigation measures in accordance with the Mojave Desert Air Quality Management District's Rules 401 and 403.2, which would limit the amount of fugitive dust generated during construction. **MM-BIO-15** (Lighting) would require nighttime lighting during construction within 50 feet of habitat for special-status species to be shielded downward.

Long-Term Operational Impacts

Potential long-term indirect impacts that could result from development within or adjacent to foraging bat habitat include nighttime lighting and increased invasive plant species that may degrade habitat. **MM-BIO-14** (Invasive Plant Management) would require that landscape plants within 200 feet of native vegetation communities not be on the most recent version of Cal-IPC's Inventory of Invasive Plants (Cal-IPC 2006). **MM-BIO-15** (Lighting) would require nighttime lighting during operations within 50 feet of habitat for special-status species to be shielded downward.

Implementation of **MM-BIO-3** (Designated Biologist Authority), **MM-BIO-4** (Compliance Monitoring), **MM-BIO-5** (Education Program), **MM-BIO-6** (Construction Monitoring Notebook), **MM-BIO-8** (Hazardous Waste), **MM-BIO-12** (Pre-construction Nesting Bird Surveys and Avoidance), **MM-BIO-14** (Invasive Plant Management), and **MM-BIO-15** (Lighting) would reduce potential indirect (short-term and long-term) impacts to foraging bats, including the pallid bat and Townsend's big-eared bat, to less than significant.

Nesting Migratory Birds and Raptors

Short-Term Construction Impacts

Construction activities have the potential to result in indirect impacts to nesting migratory birds and raptors and their habitats. Those impacts could include the loss of a nest through increased dust, noise, and vibration; increased human presence; and nighttime lighting. These potential short-term or temporary indirect impacts to these species are considered significant absent mitigation.

To ensure compliance with the California Fish and Game Code and MBTA, and to avoid potential indirect impacts to nesting birds, vegetation removal activities would be conducted outside of the general bird nesting season (February 1 through August 31, depending on the species), and if vegetation cannot be removed outside the bird nesting season, a pre-construction nesting bird survey (**MM-BIO-12**) by a qualified biologist would be required prior to vegetation removal. Indirect impacts, including increased dust, noise, and vibration; increased human presence; and nighttime lighting, would be offset through implementation of **MM-BIO-15** (Lighting), which would require nighttime lighting during construction within 50 feet of habitat for special-status species to be shielded downward. **MM-BIO-3** (Designated Biologist Authority), **MM-BIO-4** (Compliance Monitoring), **MM-BIO-5** (Education Program), and **MM-BIO-6** (Construction Monitoring Notebook) would require that all workers complete WEAP training and would require ongoing biological monitoring and compliance with all biological resource mitigation requirements. To reduce fugitive dust resulting from Project construction and to minimize adverse air quality impacts, the Project would employ dust mitigation measures in accordance with the Mojave Desert Air Quality Management District's Rules 401 and 403.2, which would limit the amount of fugitive dust generated during construction.

Long-Term Operational Impacts

Post-construction (long-term) activities have the potential to result in indirect impacts to migratory birds and raptors and their habitat. Those long-term impacts could result from development within or adjacent to suitable habitat, including nighttime lighting. These potential long-term indirect impacts to migratory birds and raptors are considered significant absent mitigation under CEQA.

MM-BIO-15 (Lighting) would require nighttime lighting during operations within 50 feet of habitat for special-status species to be shielded downward. This would reduce potential long-term indirect impacts to migratory birds and raptors to less than significant.

In summary, implementation of **MM-BIO-3** (Designated Biologist Authority), **MM-BIO-4** (Compliance Monitoring), **MM-BIO-5** (Education Program), **MM-BIO-6** (Construction Monitoring Notebook), **MM-BIO-12** (Pre-construction Nesting Bird Surveys and Avoidance), and **MM-BIO-15** (Lighting) would reduce potential indirect (short-term and long-term) impacts to nesting migratory birds and raptors to less than significant.

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. Fish and Wildlife Service?

No Direct Impacts would occur. No sensitive vegetation communities are found within the Project site; therefore, the Project would have no direct impacts to sensitive vegetation communities within the BSA.

Direct Impacts

A total of 201.1 acres would be directly impacted from the Project, including 178.7 acres of permanent impacts within the Project site and 22.4 acres of permanent impacts within the off-site improvement areas (Figure 4.3-4, Impacts to Biological Resources). As stated in Appendix C-1, Section 5.1, Vegetation Communities and Land Covers, CDFW state rankings of 1, 2, and 3 are considered high priority for inventory or special-status and impacts to these communities typically require mitigation. The Project site does not contain any sensitive vegetation communities (i.e., does not contain vegetation communities with CDFW state rankings of 1, 2, or 3). Furthermore, the Project site does not contain riparian vegetation communities. Therefore, direct impacts to sensitive vegetation communities are not anticipated to occur, and no additional measures are recommended.

Indirect Impacts

Short-Term Construction Impacts

No sensitive vegetation communities occur within the 100-foot buffer of the Project site or off-site improvements area (where it extends beyond the Project site buffer), as stated in Appendix C-1, Section 5.1 and Table 2. Therefore, implementation of the Project would likely not result in any indirect impacts to sensitive vegetation communities.

However, implementation of **MM-BIO-3** (Designated Biologist Authority) gives the Project's designated biologist the authority to stop work if construction is not compliant with this CEQA document. **MM-BIO-4** (Compliance Monitoring) requires that an experienced biologist oversee compliance with the protective measures, including limiting impacts to the Project impact footprint. **MM-BIO-5** (Education Program) would provide construction personnel with training related to sensitive vegetation communities that could potentially occur adjacent to the impact footprint (e.g., Joshua tree woodland that may be present outside of the Project's 100-foot buffer). **MM-BIO-6** (Construction Monitoring Notebook) provides for documentation that the education program was administered to applicable personnel. **MM-BIO-7** (Delineation of Property Boundaries) requires that impacts occur within the fenced, staked, or flagged area that is clearly delineated within the Project impact footprint. Thus, implementation of **MM-BIO-3** through **MM-BIO-7** would enable the Project to avoid and minimize inadvertent spillover impacts outside of the approved impact footprint.

To reduce fugitive dust resulting from Project construction and to minimize adverse air quality impacts, the Project would employ dust mitigation measures in accordance with the Mojave Desert Air Quality Management District's Rules 401 and 403.2, which limit the amount of fugitive dust generated during construction.

MM-BIO-8 (Hazardous Waste) would ensure that a prompt and effective response to any accidental chemical spills would be implemented, and that repair and clean-up of any hazardous waste occurs. Thus, implementation of **MM-BIO-8** (Hazardous Waste) would help to avoid and minimize indirect impacts to sensitive vegetation communities that could potentially occur adjacent to the impact footprint (e.g., Joshua tree woodland that may be present outside of the Project's 100-foot buffer) from any construction-related chemical spills.

A SWPPP would be prepared and implemented to prevent all construction pollutants from contacting stormwater during construction activities, with the intent of keeping sediment and any other pollutants from moving off site and into receiving waters. BMP categories employed on site would include erosion control, sediment control, and non-stormwater good housekeeping. Preparation and implementation of a SWPPP would help to avoid and minimize the potential effects of stormwater erosion during construction.

Construction of the Project would introduce potential ignition sources to the Project site, including the use of heavy machinery and the potential for sparks during welding activities or other hot work. However, the Project would be required to comply with Town and state requirements for fire safety practices to reduce the possibility of fires during construction activities. Further, vegetation would be removed from the site prior to the start of construction. Adherence to Town and state regulatory standards during Project construction would reduce the risk of wildfire ignition and spread during construction activities. Therefore, short-term construction impacts involving wildland fires would not be substantial.

Long-Term Operational Impacts

Potential long-term (post-construction) indirect impacts from operation and maintenance activities may include effects of herbicides, changes in water quality, increased wildfire risk, induced demand of the surrounding area, increased traffic and vehicle emissions, and accidental chemical spills. Indirect impacts to off-site adjacent areas may be considered significant absent mitigation.

MM-BIO-9 (Herbicides) would limit herbicide use to instances where hand or mechanical efforts are infeasible and would only be applied when wind speeds are less than 7 miles per hour to prevent drift into off-site adjacent areas that may potentially contain sensitive vegetation communities.

Implementation of low-impact-development features and BMPs would, to the maximum extent practicable, reduce the discharge of pollutants into receiving waters, including inadvertent release of pollutants (e.g., hydraulic fluids and petroleum), the improper management of hazardous materials, trash and debris, and the improper management of portable restroom facilities (e.g., regular service) in accordance with all relevant local and state development standards. In addition, in accordance with CALGreen requirements (California Green Building Standards Code, CCR, Title 24, Part 11), Project source controls to improve water quality would be provided for outdoor material storage areas, outdoor trash storage/waste handling areas, and outdoor loading/unloading areas. Therefore, impacts to sensitive vegetation communities that could potentially occur on and or adjacent to the impact footprint (e.g., Joshua tree woodland that may be present outside of the Project's 100-foot buffer) due to changes in water quality would be avoided and minimized through implementation of low-impact-development features and BMPs.

Upon completion of Project construction, with adherence to the Town of Apple Valley Municipal Code and because of the low ignitability of the proposed structures and implementation of fire-resistant and irrigated landscaping, the Project would not facilitate wildfire spread or exacerbate wildfire risk. Further, given that surrounding off-site fuels consist of moderately spaced vegetation, wildfires in the immediate surrounding area are not common, and it is

unlikely that the Project site would be exposed to the uncontrolled spread of a wildfire. It is not anticipated that the Project, due to slope, prevailing winds, and other factors, would exacerbate wildfire risks or the uncontrolled spread of a wildfire; thus, with adherence to the Town of Apple Valley Municipal Code, long-term indirect impacts to sensitive vegetation communities that could potentially occur adjacent to the impact footprint (e.g., Joshua tree woodland that may be present outside of the Project's 100-foot buffer) associated with increased wildlife risk is not expected to occur.

In summary, implementation of **MM-BIO-3** (Designated Biologist Authority), **MM-BIO-4** (Compliance Monitoring), **MM-BIO-5** (Education Program), **MM-BIO-6** (Construction Monitoring Notebook), **MM-BIO-7** (Delineation of Property Boundaries), **MM-BIO-8** (Hazardous Waste), and **MM-BIO-9** (Herbicides) would reduce potential indirect impacts (short-term and long-term) to sensitive vegetation communities that could potentially occur adjacent to the impact footprint to less than significant.

Threshold C: Would the Project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less-than-Significant Impact with Mitigation Incorporated. The BSA supports 1.93 acres of ephemeral drainages consisting of 1.68 acres of non-wetland waters of the state under RWQCB and CDFW, and 0.25 acres of jurisdictional streambed under CDFW only.

Direct Impacts

The Project would result in direct impacts to 1.86 acres of ephemeral drainages consisting of 1.61 acres of non-wetland waters of the state under RWQCB and CDFW jurisdiction and 0.25 acres of streambed under CDFW jurisdiction only. Specifically, the Project would result in 1.78 acres of on-site permanent impacts consisting of consisting of 1.53 acres of non-wetland waters of the state under RWQCB and CDFW jurisdiction, and 0.25 acres of streambed under CDFW jurisdictional only, and 0.08 acres of permanent impacts to non-wetland waters of the state under RWQCB and CDFW jurisdiction within off-site improvement areas (Figure 4.3-5, Impacts to Jurisdictional Aquatic Resources). The ephemeral drainages present are not likely subject to USACE jurisdiction because these features are isolated and do not meet the relatively permanent or significant nexus standard as a water of the United States. However, it is important to note that the ultimate decisions on the amount and location of jurisdictional resources is made by the resource agencies (i.e., USACE, CDFW, and RWQCB). These potential direct impacts to jurisdictional waters would be significant absent mitigation.

There would be direct permanent impacts to 1.86 acres of jurisdictional aquatic resources with Project implementation. Therefore, direct permanent impacts to 1.86 acres of non-wetland waters and streams that are regulated under the California Porter–Cologne Act and/or California Fish and Game Code, permits would be required from each of the regulatory agencies and typically entail providing mitigation to offset the impacts and loss of beneficial uses, functions, and values to the jurisdictional waters and habitats. RWQCB regulates waters of the state under California's Porter–Cologne Act. California Fish and Game Code Sections 1600–1616 give CDFW regulatory powers over streams and lakes, as well as vegetation associated with these features. **MM-BIO-16** (Aquatic Resources Mitigation) would require obtaining permits from each of the regulatory agencies (RWQCB and CDFW). Based on the Project design, it is assumed that the Project would require a Waste Discharge Requirement; therefore, an application must be submitted to RWQCB. A Streambed Alteration Agreement would be required for impacts to jurisdictional streambed under CDFW. Permits would be required prior to issuance of a grading permit and would be included in the Project's Conditions of Approval

In addition, **MM-BIO-3** (Designated Biologist Authority), **MM-BIO-4** (Compliance Monitoring), **MM-BIO-5** (Education Program), and **MM-BIO-6** (Construction Monitoring Notebook) would require that all workers complete WEAP training and would require ongoing biological monitoring and compliance with all biological resource mitigation requirements. **MM-BIO-7** (Delineation of Project Boundaries) requires that impacts occur within the fenced, staked, or flagged area that is clearly delineated within the Project impact footprint. The construction crew would be responsible for unauthorized impacts from construction activities to waters of the state that are outside the permitted Project footprint, if applicable. **MM-BIO-8** (Hazardous Waste) would ensure that a prompt and effective response to any accidental chemical spills would be implemented, and that repair and clean-up of any hazardous waste occurs. To reduce fugitive dust resulting from Project construction and to minimize adverse air quality impacts, the Project would employ dust mitigation measures in accordance with the Mojave Desert Air Quality Management District's Rules 401 and 403.2, which limit the amount of fugitive dust generated during construction.

In summary, implementation of **MM-BIO-3** (Designated Biologist Authority), **MM-BIO-4** (Compliance Monitoring), **MM-BIO-5** (Education Program), **MM-BIO-6** (Construction Monitoring Notebook), **MM-BIO-7** (Delineation of Property Boundaries), **MM-BIO-8** (Hazardous Waste), and **MM-BIO-16** (Aquatic Resources Mitigation) would reduce potential direct impacts to jurisdictional aquatic resources to less than significant.

Indirect Impacts

Short-Term Construction Impacts

Construction-related (short-term) indirect impacts to jurisdictional aquatic resources may include inadvertent spillover impacts outside of the construction footprint, chemical spills, and stormwater erosion and sedimentation. These potential short-term or temporary indirect impacts to jurisdictional aquatic resources are considered significant absent mitigation under CEQA.

Implementation of **MM-BIO-3** (Designated Biologist Authority) gives the Project's designated biologist the authority to stop work if construction is not compliant with this CEQA document. **MM-BIO-4** (Compliance Monitoring) requires that an experienced biologist oversee compliance with the protective measures, including limiting impacts within the Project footprint. **MM-BIO-5** (Education Program) would provide construction personnel with training related to waters of the state that are present on and adjacent to the impact footprint. **MM-BIO-6** (Construction Monitoring Notebook) provides for documentation that the education program was administered to applicable personnel. **MM-BIO-7** (Delineation of Project Boundaries) requires that impacts occur within the fenced, staked, or flagged area that is clearly delineated within the Project impact footprint. The construction crew would be responsible for unauthorized impacts from construction activities to waters of the state that are outside the permitted Project footprint, if applicable. Thus, implementation of **MM-BIO-3** through **MM-BIO-7** would enable the Project to avoid and minimize inadvertent spillover impacts outside of the approved impact footprint.

MM-BIO-8 (Hazardous Waste) would ensure that a prompt and effective response to any accidental chemical spills would be implemented, and that repair and clean-up of any hazardous waste occurs. Thus, implementation of **MM-BIO-8** (Hazardous Waste) would help to avoid and minimize indirect impacts to waters of the state from any construction-related chemical spills.

A SWPPP would be prepared and implemented to prevent construction pollutants from contacting stormwater during construction activities, with the intent of keeping sediment and any other pollutants from moving off site and into receiving waters. BMP categories employed on site would include erosion control, sediment control, and non-

stormwater good housekeeping. Preparation and implementation of a SWPPP would help to avoid and minimize the potential effects of stormwater erosion during construction.

Long-Term Operational Impacts

Post-construction (long-term) indirect impacts from operations and maintenance activities may include changes in water quality and accidental chemical spills. These potential long-term indirect impacts to jurisdictional aquatic resources are considered significant absent mitigation.

Potential long-term (post-construction) indirect impacts from operations and maintenance activities may include changes in water quality and accidental chemical spills. Implementation of low-impact-development features and BMPs would, to the maximum extent practicable, reduce the discharge of pollutants into receiving waters, including inadvertent release of pollutants (e.g., hydraulic fluids and petroleum); the improper management of hazardous materials; trash and debris; and the improper management of portable restroom facilities (e.g., regular service) in accordance with all relevant local and state development standards. In addition, in accordance with CALGreen requirements (California Green Building Standards Code, CCR, Title 24, Part 11), Project source controls to improve water quality would be provided for outdoor material storage areas, outdoor trash storage/waste handling areas, and outdoor loading/unloading areas. Therefore, impacts to jurisdictional aquatic resources due to changes in water quality would be avoided and minimized through implementation of low-impact-development features and BMPs.

MM-BIO-8 (Hazardous Waste) would ensure that a prompt and effective response to any accidental chemical spills would be implemented, and that repair and clean-up of any hazardous waste occurs. Thus, implementation of **MM-BIO-8** (Hazardous Waste) would help to avoid and minimize impacts to jurisdictional aquatic resources from any operations-related chemical spills.

In summary, implementation of **MM-BIO-3** (Designated Biologist Authority), **MM-BIO-4** (Compliance Monitoring), **MM-BIO-5** (Education Program), **MM-BIO-6** (Construction Monitoring Notebook), **MM-BIO-7** (Delineation of Property Boundaries), and **MM-BIO-8** (Hazardous Waste) would reduce potential indirect (short-term and long-term) impacts to jurisdictional aquatic resources to less than significant.

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

Less-than-Significant Impact. The BSA is not located within an essential connectivity area, natural landscape block, or linkage for the California Desert Linkage Network. It is approximately 1 mile northeast of an area mapped as a linkage for the California Desert Linkage Network. Additionally, the BSA is mapped as an Area of Conservation Emphasis, Rank 1, which means “lands that have limited connectivity opportunity” (CDFW 2019), and no further action is required.

Direct Impacts

No significant direct permanent impacts would occur on wildlife movement or use of native wildlife nursery sites associated with Project activities. Existing nearby habitat linkages and wildlife corridor functions would remain intact while construction activities are conducted and following Project completion. Wildlife movement may be temporarily disrupted during the construction phase of the Project, although this effect would be both localized and short-term. Nearby corridors that could support wildlife movement in the region, such as the Mojave River, which is

approximately 16 miles south of the BSA, would not be impacted by the Project. Further, the Project site does not contain nursery sites, such as bat colony roosting sites or colonial bird nesting areas. Therefore, impacts associated with wildlife movement, wildlife corridors, and wildlife nursery sites would be less than significant under CEQA.

Indirect Impacts

Short-Term Construction Impacts

Construction-related short-term noise and work in the vicinity would be temporary and would not be expected to significantly disrupt wildlife movement due to ambient noise conditions and the ability for wildlife to continue to move around the construction area and upland portions of the BSA during and after construction. Temporary disturbance to local species may occur but would not substantially degrade the quality or use of the vegetation communities in the vicinity. Work activities are not currently proposed during the nighttime. Therefore, implementation of the Project would not result in significant short-term indirect impacts to wildlife corridors or migratory routes.

Long-Term Operational Impacts

Although the BSA is not located within an essential connectivity area, natural landscape block, or linkage for the California Desert Linkage Network, potential long-term (post-construction) indirect impacts from operations and maintenance activities could disrupt wildlife movement around the Project site due to increased lighting from buildings. Therefore, even though impacts associated with wildlife movement, wildlife corridors, and wildlife nursery sites would be less than significant **MM-BIO-18** (Lighting) would ensure all lighting during operations and within 50 feet of the outside edge of the impact footprint containing habitat for special-status wildlife would be directed away from natural areas.

In summary, although indirect impacts to wildlife movement would be less than significant, implementation of **MM-BIO-18** (Lighting) would further reduce potential indirect impacts to wildlife movement.

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

Less-than-Significant Impact with Mitigation Incorporated. The Apple Valley Municipal Code (Chapter 9.76) regulates and protects California Desert Native Plants, including western Joshua trees. The following analysis evaluates the Project's potential conflicts with such local policies and ordinances.

California Desert Native Plants and Western Joshua Tree

The Project would result in direct impacts to 283 western Joshua trees documented within the Project site and off-site improvements area. In addition to western Joshua tree, two desert native plant species were recorded within the Project site during the focused desert native plant survey: one Wiggins' cholla and one Mojave yucca. Both plants would be directly removed by the Project (Figure 4.3-4).

Therefore, because the focused desert native plant survey was positive for western Joshua tree, Wiggins' cholla, and Mojave yucca, and in accordance with the CDNPA and Chapter 9.76 of the Apple Valley Municipal Code, a native plant removal permit must be obtained from the Town prior to the removal of these individuals. These impacts are addressed in the Joshua Tree Preservation, Protection, and Relocation Plan, and Desert Native Plant Relocation Plan (Appendix C of Appendix C-1), prepared to provide detailed specifications for the Project applicant

to meet the requirements of Chapter 9.76 of the Apple Valley Municipal Code to protect, preserve, and mitigate impacts to desert native plants.

Pursuant to **MM-BIO-2** (Relocation of Desert Native Plants), the Project applicant will submit an application and applicable fee paid to the Town for removal or relocation of protected native desert plants under Town of Apple Valley Municipal Code Chapter 9.76. The application will include certification from a qualified western Joshua tree and native desert plant expert to determine that proposed removal or relocation of protected native desert plants are appropriate, supportive of a healthy environment, and in compliance with the Town of Apple Valley's Municipal Code. The application will include the Joshua Tree Preservation, Protection, and Relocation Plan, and Desert Native Plant Relocation Plan (Appendix C of Appendix C-1). The plan was prepared by a qualified western Joshua tree and native desert plant expert. The Joshua Tree Preservation, Protection, and Relocation Plan addresses the requirements of the Town's Protected Plant Policy and provides details for the initial survey of the Joshua trees within the Project site and off-site improvements area, detailed specifications for the protection of trees to be preserved on site, and relocation/salvage requirements for those trees requiring removal and relocation. With the incorporation of mitigation, and with adherence to both the CDNPA and the Town of Apple Valley's Municipal Code, impacts associated with western Joshua tree and desert native plants would be less than significant.

The Project could result in significant impacts to native desert plants and western Joshua trees protected by state and local plant and tree preservation regulations, absent mitigation. Implementation of **MM-BIO-1** (Conservation of Western Joshua Tree Lands) and **MM-BIO-2** (Relocation of Desert Native Plants) would reduce potential impacts California desert native plants and western Joshua tree to less than significant.

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

Less-than-Significant Impact. The Project is located within the California Desert Conservation Area Plan (BLM 1980). The Project is also located within the West Mojave Plan (BLM 2005) and the Desert Renewable Energy Conservation Plan (BLM 2016) areas. The West Mojave Plan and Desert Renewable Energy Conservation Plan are amendments to the California Desert Conservation Area Plan. The Bureau of Land Management (BLM) issued a Record of Decision for the West Mojave Plan in 2006, although the West Mojave Plan has not been formally adopted. The Project will not conflict with the conservation criteria associated with the California Desert Conservation Area Plan or Desert Renewable Energy Conservation Plan as the Project is not located on BLM lands and is not a renewable energy project. Therefore, impacts associated with an adopted habitat conservation plan would be less than significant under CEQA.

In addition, the BSA occurs within the Town of Apple Valley Multiple-Species Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP), which is in the early stages of development, and there is no draft Town of Apple Valley Multiple-Species NCCP/HCP available for review at this time. However, there is a draft Public Review Planning Agreement document (Town of Apple Valley 2017) available for review that contains interim guidelines for the Town. Based on discussions Dudek has had with the Town on other projects in the Town, it is understood that the Town is at least 2 to 3 years away from completing this effort. The interim guidelines, which should be reviewed in their totality, include requirements that are generally required under CEQA for biological resources, and there are some specific items to note: (1) all reports documenting the presence of listed species will be forwarded to responsible agencies; (2) for projects that propose to restore, enhance, or create habitats, the Project will be required to prepare a mitigation plan consistent with USACE Mitigation Rule; (3) for impacts to drainages other than the Mojave River, mitigation must be provided at least a 1:1 ratio, and all avoided drainages must have a buffer of 50 feet in width; (4) endemic plants must be translocated/restored at a 2:1 ratio; (5) areas

of steep slopes should be avoided, and a buffer of 100 feet should be provided at the base of steeps slops; and (6) preferred landscaping is native, and planting invasive species is prohibited. In the event that the NCCP/HCP is approved at the time of Project implementation, the biological technical report should be consistent with the Town of Apple Valley Multiple-Species NCCP/HCP.

Threshold G: Would the Project result in cumulatively considerable impacts to biological resources?

Less-than-Significant Impact with Mitigation Incorporated. The Project would result in potentially cumulatively considerable impacts to western Joshua trees. Western Joshua trees are a state candidate species for listing under CESA and are locally protected by the Town of Apple Valley and by the CDNPA. As required by **MM-BIO-1** (Conservation of Western Joshua Tree Lands), mitigation for direct impacts to four western Joshua trees that are 5 meters or greater in height, 201 trees 1 meter or greater but less than 5 meters in height, and 78 trees less than 1 meter in height will be fulfilled through a payment of the fees as described in Section 1927.3 of the WJTCA. In conformance with the fee schedule, mitigation will consist of payment of $1,000 for each western Joshua tree 5 meters or greater in height, $200 for each western Joshua tree 1 meter or greater but less than 5 meters in height, and $150 for each western Joshua tree less than 1 meter in height. Additionally, as required by MM-BIO-2 (Relocation of Desert Native Plants) and in accordance with Town of Apple Valley Municipal Code Chapter 9.76, the preparation of a Joshua tree and desert native plants relocation plan is required to mitigate impacts to western Joshua trees as a result of the Project. As such, a Joshua Tree Preservation, Protection, and Relocation Plan, and Desert Native Plant Relocation Plan was prepared (Appendix C of Appendix C-1).

Potential impacts to special-status wildlife species, such as Mojave desert tortoise, burrowing owl, LeConte's thrasher, loggerhead shrike, pallid bat, Townsend's big-eared bat, and nesting birds and raptors would be reduced to less than significant through Project implementation of **MM-BIO-3** through **MM-BIO-14**. Implementing these mitigation measures would reduce potential impacts to less than significant and would significantly reduce the potential for direct or indirect impacts to special-status species. Therefore, there would not be a cumulatively considerable impact on any special-status species.

Potential impacts to jurisdictional waters of the United States and state, if necessary, would be reduced to less than significant through implementation of **MM-BIO-3** (Designated Biologist Authority), **MM-BIO-4** (Compliance Monitoring), **MM-BIO-5** (Education Program), **MM-BIO-6** (Construction Monitoring Notebook), **MM-BIO-8** (Hazardous Waste), and **MM-BIO-16** (Aquatic Resources Mitigation). Implementing these mitigation measures would reduce potential impacts to less than significant and would significantly reduce the potential for direct or indirect impacts to waters of the United States and state. Therefore, there would not be a cumulatively considerable impact to waters of the United States.

Additionally, the Project would not result in a significant impact to wildlife corridors and linkages, nor to local policies and regional conservation plans. The Project would therefore not contribute to a cumulative impact on these resources.

4.3.5 Mitigation Measures and Level of Significance After Mitigation

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?

One candidate for state listing under CESA, western Joshua tree, was observed and would be directly impacted by the Project. Four special-status wildlife species were determined to have a moderate potential to occur within the BSA and would potentially be directly impacted by the Project: burrowing owl, loggerhead shrike, and Mohave desert tortoise. Suitable habitat for Mohave desert tortoise, burrowing owl, LeConte's thrasher, and loggerhead shrike would be directly impacted by the Project.

The Project could result in potentially significant impacts to species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS, including native desert plants protected under the CDNPA and Town of Apple Valley Municipal Code. Implementation of MM-BIO-1 through MM-BIO-15 is required to reduce impacts to a less-than-significant level.

MM-BIO-1 Conservation of Western Joshua Tree Lands. Mitigation for direct impacts to 4 western Joshua trees that are 5 meters or greater in height, 201 trees 1 meter or greater but less than 5 meters in height, and 78 trees less than 1 meter in height will be fulfilled through a payment of the elected fees as described in Section 1927.3 of the Western Joshua Tree Conservation Act. In conformance with the reduced fee schedule, mitigation will consist of payment of $1,000 for each western Joshua tree 5 meters or greater in height, $200 for each western Joshua tree 1 meter or greater but less than 5 meters in height, and $150 for each western Joshua tree less than 1 meter in height.

MM-BIO-2 Relocation of Desert Native Plants. Prior to the issuance of grading permits, the Project Applicant shall submit an application and applicable fee paid to the Town of Apple Valley for removal or relocation of protected native desert plants under Town of Apple Valley Municipal Code Chapter 9.76, as required, and shall schedule a pre-construction site inspection with the appropriate authority. In addition, a plot plan shall be approved by the appropriate Town of Apple Valley Review Authority (County Certified Plant Expert, Planning Commission, or Town Council) indicating exactly which trees or plants are authorized to be removed.

The application shall include certification from a qualified western Joshua tree and native desert plant expert(s) to determine that proposed removal or relocation of protected native desert plants are appropriate, supportive of a healthy environment, and in compliance with the Town of Apple Valley Municipal Code. Protected plants subject to Town of Apple Valley Municipal Code Chapter 9.76 may be relocated on site or within an area designated for the species.

The application shall include a detailed plan for removal of all protected plants on the Project site. The plan shall be prepared by a qualified western Joshua tree and native desert plant expert(s). The plan shall include the following measures:

- Salvaged plants shall be transplanted expeditiously to either their final on-site location or to an approved off-site area. If the plants cannot be expeditiously taken to their permanent relocation

area at the time of excavation, they may be transplanted in a temporary area (stockpiled) prior to being moved to their permanent relocation site(s).

- Western Joshua trees shall be marked on their north-facing side prior to excavation. Transplanted western Joshua trees shall be planted in the same orientation as they currently occur on the Project site, with the marking on the north side of the trees facing north at the relocation site(s).
- Transplanted plants shall be watered prior to and at the time of transplantation. The schedule of watering shall be determined by the qualified tree expert and desert native plant expert(s) to maintain plant health. Watering of the transplanted plants shall continue under the guidance of a qualified tree expert and desert native plant expert(s) until it has been determined that the transplants have become established in the permanent relocation site(s) and no longer require supplemental watering.

MM-BIO-3 Designated Biologist Authority. The designated biologist shall have authority to immediately stop any activity that does not comply with the biological resources mitigation measures and/or to order any reasonable measure to avoid the unauthorized take of an individual western Joshua tree or special-status wildlife species.

MM-BIO-4 Compliance Monitoring. The designated biologist shall be on site daily when impacts occur. The designated biologist shall conduct compliance inspections to minimize incidental take of western Joshua trees and impacts to other sensitive biological resources; prevent unlawful take of western Joshua trees; and ensure that signs, stakes, and fencing are intact, and that impacts are only occurring outside the permitted impact footprint. Weekly written observation and inspection records that summarize oversight activities and compliance inspections and monitoring activities required by the Incidental Take Permit shall be prepared.

MM-BIO-5 Education Program. An education program (Worker Environmental Awareness Program [WEAP]) for all persons employed or otherwise working in the Project area shall be administered before performing impacts. The WEAP shall consist of a presentation from the designated biologist that includes a discussion of the biology and status of western Joshua trees, burrowing owls, and loggerhead shrikes, and other biological resources mitigation measures described in the California Environmental Quality Act document. Interpretation for non-English-speaking workers shall be provided, and the same instruction shall be provided to all new workers before they are authorized to perform work in the Project area. Upon completion of the WEAP, employees shall sign a form stating they attended the program and understand all protection measures. This training shall be repeated at least once annually for long-term and/or permanent employees who will be conducting work in the Project area.

MM-BIO-6 Construction Monitoring Notebook. The designated biologist shall maintain a construction-monitoring notebook on site throughout the construction period that shall include a copy of the biological resources mitigation measures with attachments and a list of signatures of all personnel who have successfully completed the education program. The permittee shall ensure that a copy of the construction monitoring notebook is available for review at the Project site upon request by the Town.

MM-BIO-7 Delineation of Project Boundaries. Before beginning activities that would cause impacts, the contractor shall, in consultation with the designated biologist, clearly delineate the boundaries with fencing, stakes, or flags, consistent with the grading plan, within which Project impacts will take place. All impacts outside the fenced, staked, or flagged areas shall be avoided, and all fencing, stakes, and flags shall be maintained until the completion of impacts in that area.

MM-BIO-8 Hazardous Waste. The applicant shall immediately stop work and, pursuant to pertinent state and federal statutes and regulations, arrange for repair and cleanup by qualified individuals of any fuel or hazardous waste leaks or spills at the time of occurrence, or as soon as it is safe to do so.

MM-BIO-9 Herbicides. The applicant shall limit herbicide use for invasive plant species and shall use herbicides only if it has been determined that hand or mechanical efforts are infeasible. To prevent drift, the permittee shall apply herbicides only when wind speeds are less than 7 miles per hour. All herbicide application shall be performed by a licensed applicator and in accordance with all applicable federal, state, and local laws and regulations.

MM-BIO-10 Pre-construction Clearance Surveys for Mojave Desert Tortoise and Avoidance. One pre-construction clearance survey in accordance with current U.S. Fish and Wildlife Service (USFWS) protocol shall be conducted to reevaluate locations of potential Mojave desert tortoise burrows within the Project limits so take of Mojave desert tortoise can be avoided. The pre-construction clearance survey shall be conducted in areas supporting potentially suitable habitat 14 to 21 days prior to the start of construction activities; or alternatively, pre-construction clearance surveys may be conducted at any time following construction of a desert tortoise–proof fence encompassing the Project site that would ensure that tortoises cannot enter the Project after clearance surveys are completed. If no Mojave desert tortoises are found during the surveys, no further mitigation would be required; however, desert tortoise–proof fence encompassing the Project site shall remain in place until Project construction is completed and shall be monitored by a qualified biologist in compliance with current USFWS protocol.

Should Mojave desert tortoise be located during the clearance survey, all methods used for handling desert tortoises during the clearance surveys must be in accordance with the USFWS Desert Tortoise Field Manual or Project-specific guidance contained in a habitat conservation plan or Incidental Take Permit. No take of Mojave desert tortoise shall occur without authorization in the form of an Incidental Take Permit pursuant to California Fish and Game Code Section 2081 and a habitat conservation plan. The Project Applicant shall adhere to measures and conditions set forth within the Incidental Take Permit. Anyone who handles desert tortoises during clearance activities must have the appropriate authorizations from USFWS. The area cleared and number of Mojave desert tortoises found within that area shall be reported to the local USFWS and appropriate state wildlife agency. Notification shall be made in accordance with the conditions of the habitat conservation plan or Incidental Take Permit.

Should Mojave desert tortoise be located during the clearance survey, the Project would result in the loss of 165.4 acres of suitable habitat for Mojave desert tortoise. Mitigation for direct impacts to 165.4 acres shall be fulfilled through conservation of suitable Mojave desert tortoise habitat through the purchase of credits at a minimum of 1:1 in-kind habitat replacement of equal or better functions and values to those impacted by the Project, for a total of 165.4 acres or as otherwise determined through coordination with USFWS and/or the California Department of Fish and Wildlife.

MM-BIO-11 Pre-construction Surveys for Burrowing Owl and Avoidance. One pre-construction burrowing owl survey shall be completed no more than 14 days before initiation of site preparation or grading activities, and a second survey shall be completed within 24 hours of the start of site preparation or grading activities. If ground-disturbing activities are delayed or suspended for more than 30 days after the pre-construction surveys, the Project site and off-site improvement areas shall be resurveyed. Surveys for burrowing owl shall be conducted in accordance with protocols established in the California Department of Fish and Wildlife (CDFW; then California Department of Fish and Game) 2012 (or most recent version) Staff Report on Burrowing Owl Mitigation.

If burrowing owls are detected, the burrowing owl relocation plan shall be implemented in consultation with CDFW, with the plan to be approved by the Town. As required by the burrowing owl relocation plan, disturbance to occupied burrows shall be avoided during the nesting season (February 1 through August 31). Buffers shall be established around occupied burrows in accordance with guidance provided in CDFW's Staff Report on Burrowing Owl Mitigation. No Project activities shall be allowed to encroach into established buffers without the consent of a monitoring biologist. The buffer shall remain in place until it is determined that occupied burrows have been vacated or the nesting season has completed.

Outside of the nesting season, passive owl relocation techniques shall be implemented. Owls shall be excluded from burrows in the immediate Project area and within a buffer zone by installing one-way doors in burrow entrances. These doors shall be in place at least 72 hours prior to ground-disturbing activities. The Project site shall be monitored daily for 1 week to confirm owl departure from burrows prior to any ground-disturbing activities. Compensatory mitigation for permanent loss of owl habitat, if the site is occupied by burrowing owl, shall be provided following the guidance in CDFW's Staff Report on Burrowing Owl Mitigation.

Where possible, burrows shall be excavated using hand tools and refilled to prevent reoccupation. Sections of flexible plastic pipe shall be inserted into the tunnels during excavation to maintain an escape route for any wildlife inside the burrow. An endoscope (fiber optic camera) should also be used to scope the burrow in front of the excavation. Occupied burrows that are excavated need to be replaced at a 2:1 ratio if there are already suitable burrows present nearby.

Should burrowing owl be located during the clearance survey, the Project would result in the loss of 165.4 acres of suitable habitat for burrowing owl. Mitigation for direct impacts to 165.4 acres shall be fulfilled through conservation of suitable burrowing owl habitat through the purchase of credits at a minimum of 1:1 in-kind habitat replacement of equal or better functions and values to those impacted by the Project, for a total of 165.4 acres.

MM-BIO-12 Pre-construction Nesting Bird Surveys and Avoidance. Special-status bird species that have a moderate potential to occur within the Project include burrowing owl, LeConte's thrasher, and loggerhead shrike. The Project also contains trees, shrubs, and other vegetation that provide opportunities for other non-sensitive birds and raptors to nest on site. Construction activities shall avoid the migratory bird nesting season (typically February 1 through August 31) to reduce any potential significant impact to birds that may be nesting in the survey area. If construction activities must occur during the migratory bird nesting season, an avian nesting survey of the Project site and within 500 feet of all impact areas must be conducted to determine the presence/absence of protected migratory birds and active nests. The avian nesting survey shall be performed by a

qualified wildlife biologist within 72 hours prior to the start of construction in accordance with the Migratory Bird Treaty Act and California Fish and Game Code Sections 3503, 3503.5, and 3513. If an active bird nest is found, the nest shall be flagged and mapped on the construction plans, along with an appropriate buffer established around the nest, which shall be determined by the biologist based on the species' sensitivity to disturbance (typically 300 feet for passerines and 500 feet for raptors and special-status species). The nest area shall be avoided until the nest is vacated and the juveniles have fledged. The nest area shall be demarcated in the field with flagging and stakes or construction fencing. On-site construction monitoring shall be conducted when construction occurs in close proximately to an active nest buffer. No Project activities shall encroach into established buffers without the consent of a monitoring biologist. The buffer shall remain in place until is determined that the nestlings have fledged and the nest is no longer active.

MM-BIO-13 Trash and Debris. The following avoidance and minimization measures shall be implemented during Project construction:

- Fully covered trash receptacles that are animal-proof shall be installed and used by the operator to contain all food, food scraps, food wrappers, beverage containers, and other miscellaneous trash. Trash contained within the receptacles shall be removed at least once a week from the Project site.
- Construction work areas shall be kept clean of debris, such as cable, trash, and construction materials. All construction/contractor personnel shall collect all litter, vehicle fluids, and food waste from the Project site on a daily basis.

MM-BIO-14 Invasive Plant Management. To reduce the spread of invasive plant species, landscape plants within 200 feet of native vegetation communities shall not be on the most recent version of the California Invasive Plant Council's Inventory of Invasive Plants (http://www.cal-ipc.org/ip/inventory/index.php). Post-construction, the Project Applicant shall continually remove invasive plant species on site by hand or mechanical methods, as feasible.

MM-BIO-15 Lighting. Lighting for construction activities and operations within 50 feet of the outside edge of the impact footprint containing habitat for special-status wildlife shall be directed away from natural areas.

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. Fish and Wildlife Service?

The Project site does not contain any sensitive vegetation communities; therefore, direct impacts to sensitive vegetation communities are not anticipated to occur, and no additional measures are recommended. No direct impacts would occur. Implementation of **MM-BIO-3, MM-BIO-4, MM-BIO-5, MM-BIO-6, MM-BIO-7, MM-BIO-8,** and **MM-BIO-9** are required to reduce indirect impacts to adjacent sensitive vegetation communities that may occur outside of the Project footprint to a less-than-significant level.

Threshold C: Would the Project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

The Project could result in potentially significant impacts to non-wetland waters of the United States and state as a result of Project activities. Short-term and long-term indirect impacts to jurisdictional waters relating to construction activities (edge effects) and trash/pollution would not likely result in significant impacts, especially with the application of the standard BMPs that would be implemented during Project construction. Implementation of **MM-BIO-3**, **MM-BIO-4**, **MM-BIO-5**, **MM-BIO-6**, **MM-BIO-7**, **MM-BIO-8**, and **MM-BIO-16** is required to reduce direct and indirect impacts to a less-than-significant level.

MM-BIO-16 Aquatic Resources Mitigation. The Project site and off-site improvements area support aquatic resources that are considered jurisdictional under the Regional Water Quality Control Board (RWQCB) and the California Department of Fish and Wildlife (CDFW). Prior to construction activity, the Applicant shall coordinate with the Lahontan RWQCB (Region 6) to ensure conformance with the requirements of the Porter–Cologne Water Quality Control Act (waste discharge requirement). Prior to activity within CDFW jurisdictional streambed or associated riparian habitat, the Applicant shall coordinate with CDFW (Inland Deserts Region 6) relative to conformance to the Lake and Streambed Alteration permit requirements.

The Project shall mitigate to ensure no-net-loss of waters at a minimum of 1:1 with purchase of credits (1.61 acres RWQCB/CDFW jurisdiction and 0.25 acres CDFW only jurisdiction) for impacts to aquatic resources as part of an overall strategy to ensure no net loss. Mitigation shall be completed through use of a mitigation bank (e.g., West Mojave Mitigation Bank, Wildlands) or other applicant-sponsored mitigation. Final mitigation ratios and credits shall be determined in consultation with RWQCB and/or CDFW based on agency evaluation of current resource functions and values and through each agency's respective permitting process.

Should Applicant-sponsored mitigation be implemented, a Habitat Mitigation and Monitoring Plan (HMMP) shall be prepared in accordance with State Water Resources Control Board guidelines and approved by the agencies in accordance with the proposed program permits. The HMMP shall include a conceptual planting plan including planting zones, grading, and irrigation, as applicable; a conceptual planting plant palette; a long-term maintenance and monitoring plan; annual reporting requirements; and proposed success criteria. Any Applicant-sponsored mitigation shall be conserved and managed in perpetuity.

Best management practices shall be implemented to avoid any indirect impacts on jurisdictional waters, including the following:

- Vehicles and equipment shall not be operated in ponded or flowing water except as described in permits.
- Water containing mud, silt, or other pollutants from grading or other activities shall not be allowed to enter jurisdictional waters or be placed in locations that may be subjected to high storm flows.
- Spoil sites shall not be located within 30 feet from the boundaries of jurisdictional waters or in locations that may be subject to high storm flows, where spoils might be washed back into drainages.

- Raw cement/concrete or washings thereof, asphalt, paint or other coating material, oil or other petroleum products, or any other substances that could be hazardous to vegetation or wildlife resources resulting from Project-related activities shall be prevented from contaminating the soil and/or entering avoided jurisdictional waters.
- No equipment maintenance shall be performed within 100 feet of jurisdictional waters, including wetlands and riparian areas, where petroleum products or other pollutants from the equipment may enter these areas. Fueling of equipment shall not occur on the Project site.

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

No significant direct permanent impacts or construction-related short-term impacts would occur on wildlife movement or use of native wildlife nursery sites associated with Project activities. Although indirect impacts to wildlife movement would be less than significant, the Project could result in long-term indirect impacts from operations and maintenance activities that could disrupt wildlife movement around the Project site due to increased lighting from buildings. Implementation of **MM-BIO-15** would further reduce long-term indirect impacts to a less-than-significant level.

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

Implementation of **MM-BIO-1** and **MM-BIO-2** would reduce potential impacts to California desert native plants (western Joshua tree, Wiggins' cholla, and Mojave yucca cholla) to less than significant.

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

The Project will not conflict with the conservation criteria associated with the California Desert Conservation Area Plan, the West Mojave Plan, the Desert Renewable Energy Conservation Plan, or the Town of Apple Valley Multiple-Species Natural Community Conservation Plan/Habitat Conservation Plan. Therefore, the Project would not be in conflict with any habitat conservation plans. The Project would result in less-than-significant impacts to an adopted conservation plan. No mitigation is required.

Threshold G: Would the Project result in cumulatively considerable impacts to biological resources?

The Project could contribute to a cumulative considerable impact related to native desert plants protected under the CNDPA, western Joshua trees, Mojave desert tortoise, burrowing owl, LeConte's thrasher, loggerhead shrike, pallid bat, Townsend's big-eared bat, and nesting migratory birds and raptors. Potential cumulative impacts to jurisdictional resources could also occur, and mitigation would be required. Incorporation of **MM-BIO-1** through **MM-BIO-16** is required to reduce impacts to less than significant.

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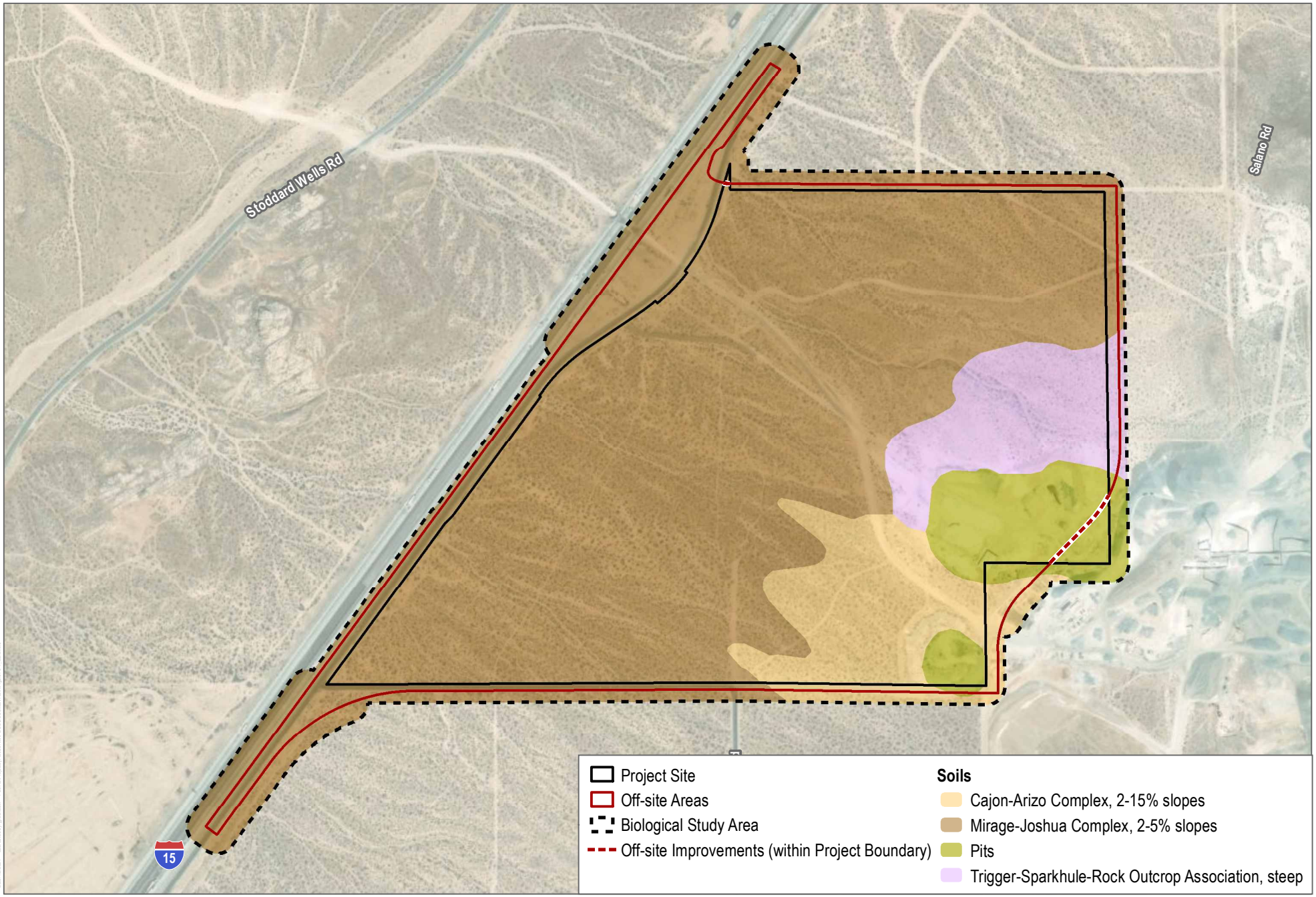

SOURCE: USDA NRCS Soils; County of San Bernardino; Open Street Map; ESRI World Imagery 2022

DUDEK

0 300 600 Feet

FIGURE 4.3-1

Soils

Inland Empire North Logistics Center Apple Valley Project

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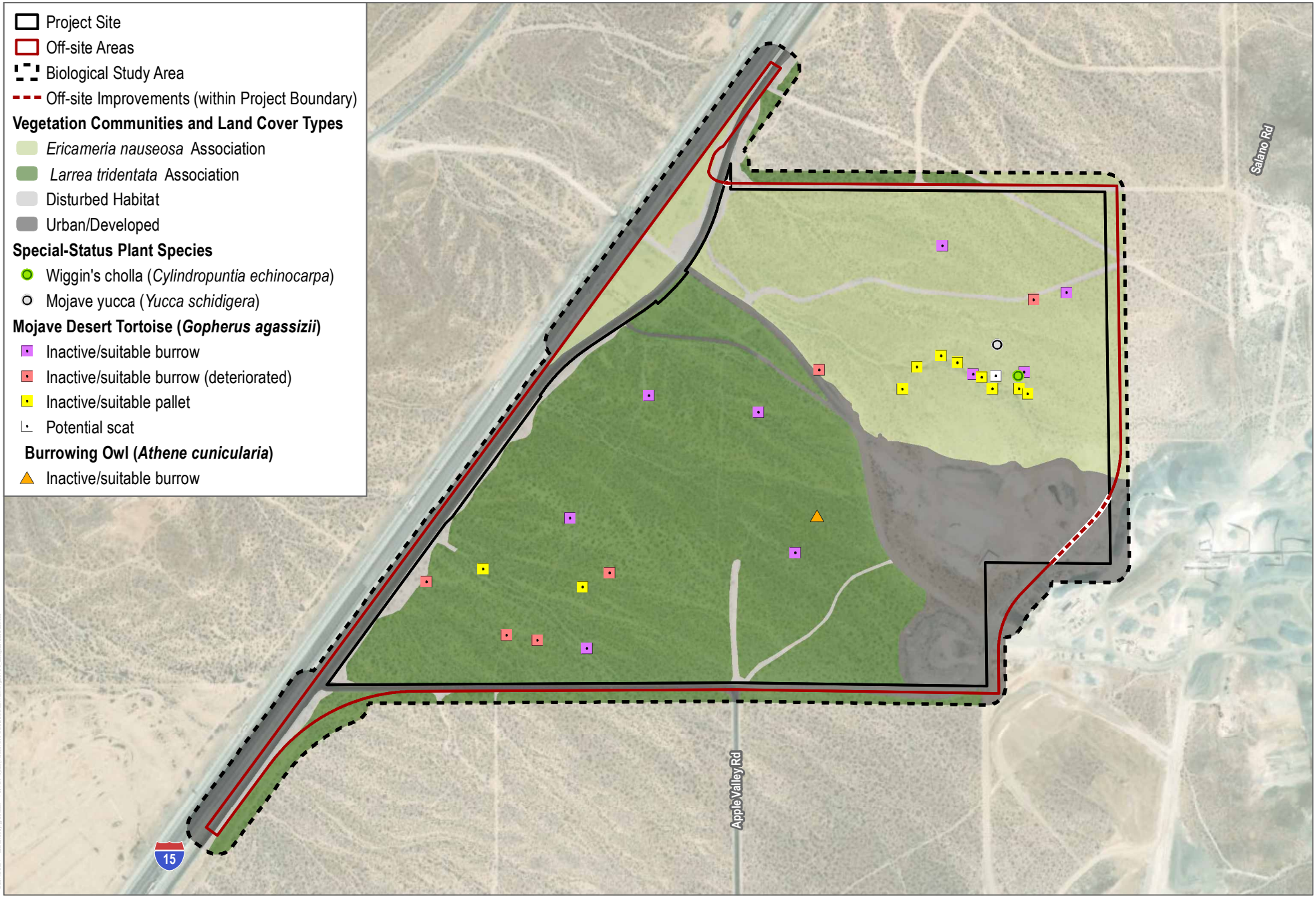

SOURCE: County of San Bernardino; Open Street Map; ESRI World Imagery 2022

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FIGURE 4.3-2

Biological Resources

Inland Empire North Logistics Center Apple Valley Project

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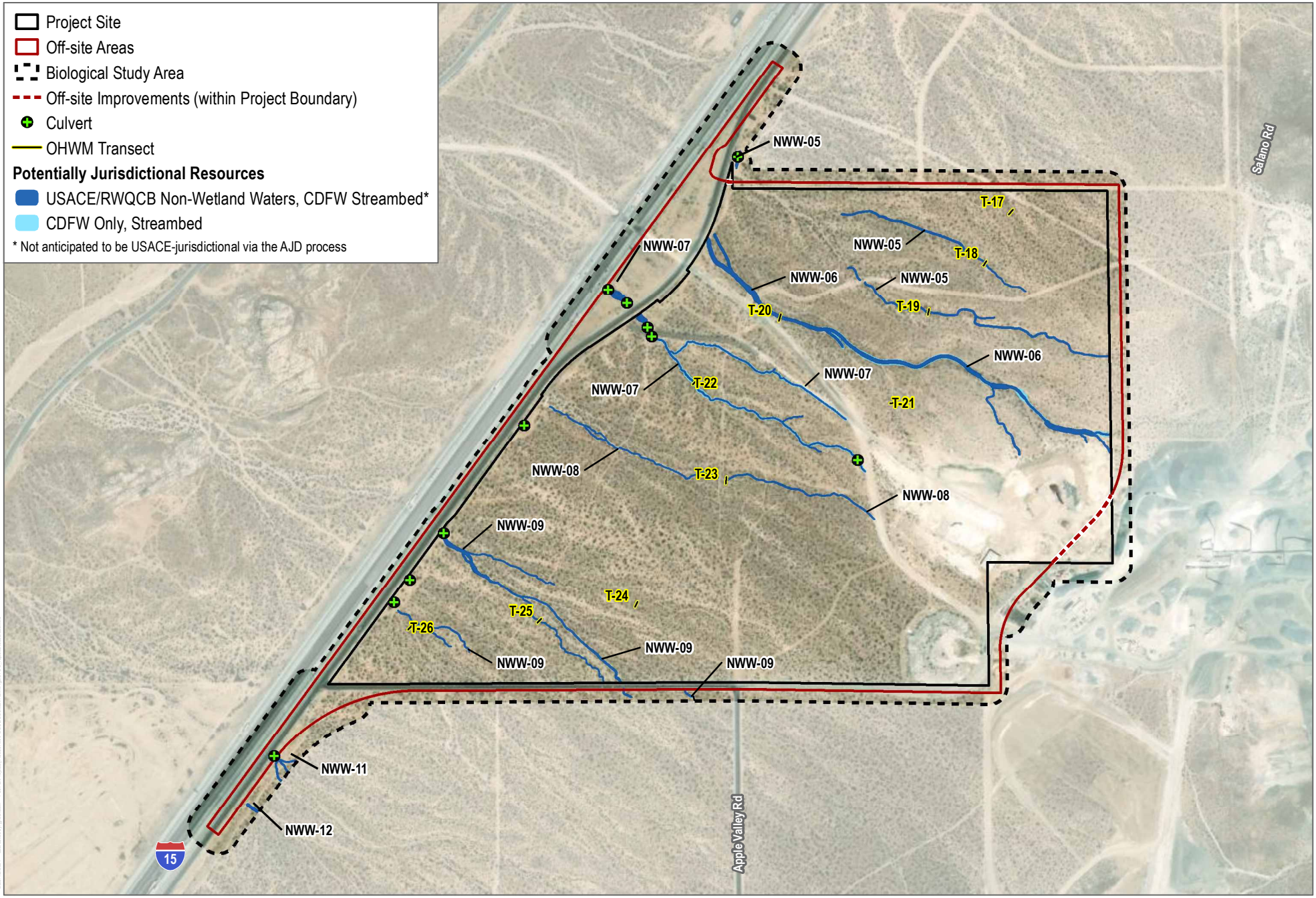

SOURCE: County of San Bernardino; Open Street Map; ESRI World Imagery 2022

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FIGURE 4.3-3

Jurisdictional Aquatic Resources

Inland Empire North Logistics Center Apple Valley Project

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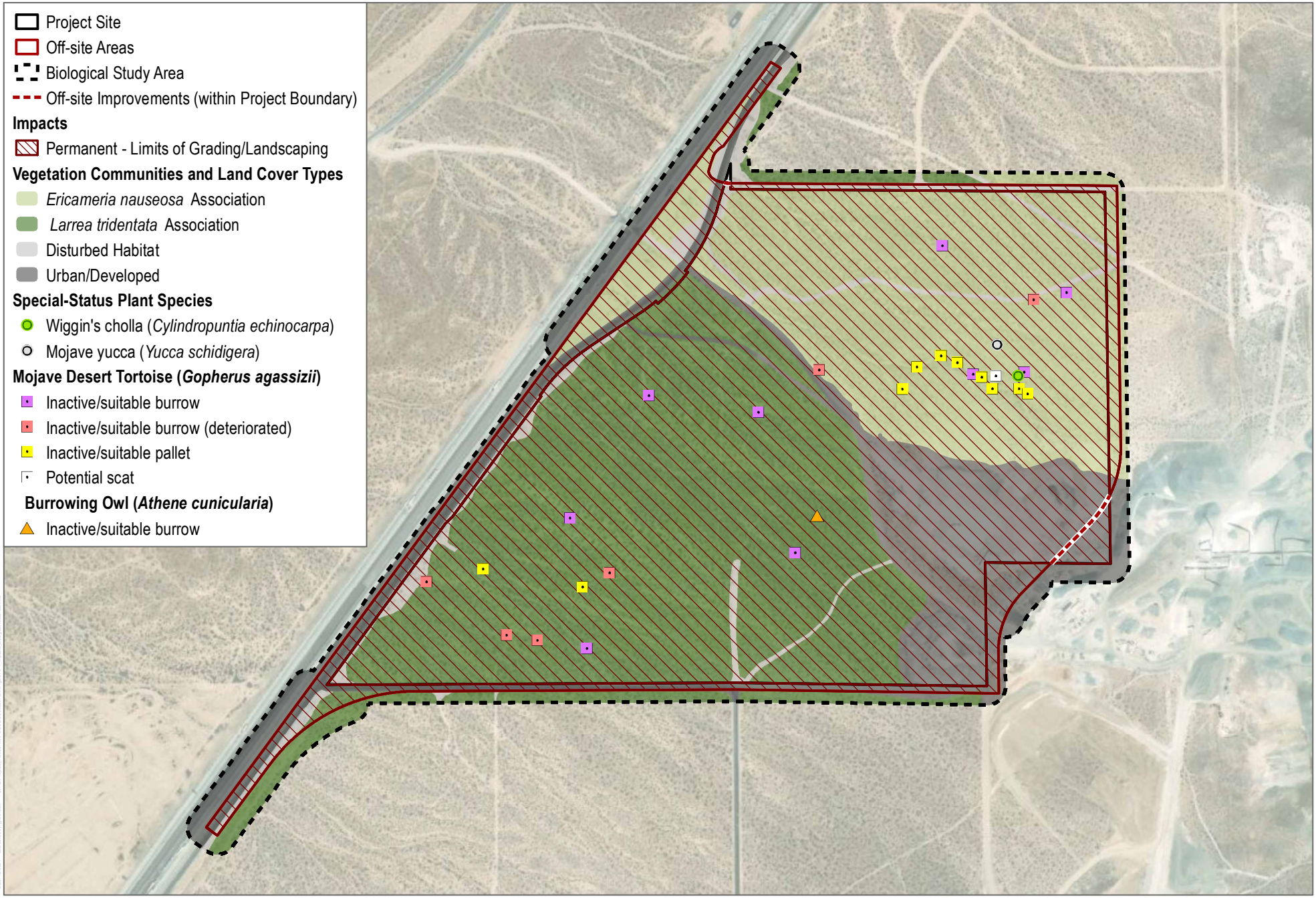

SOURCE: County of San Bernardino; Open Street Map; ESRI World Imagery 2022

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FIGURE 4.3-4

Impacts to Biological Resources

Inland Empire North Logistics Center Apple Valley Project

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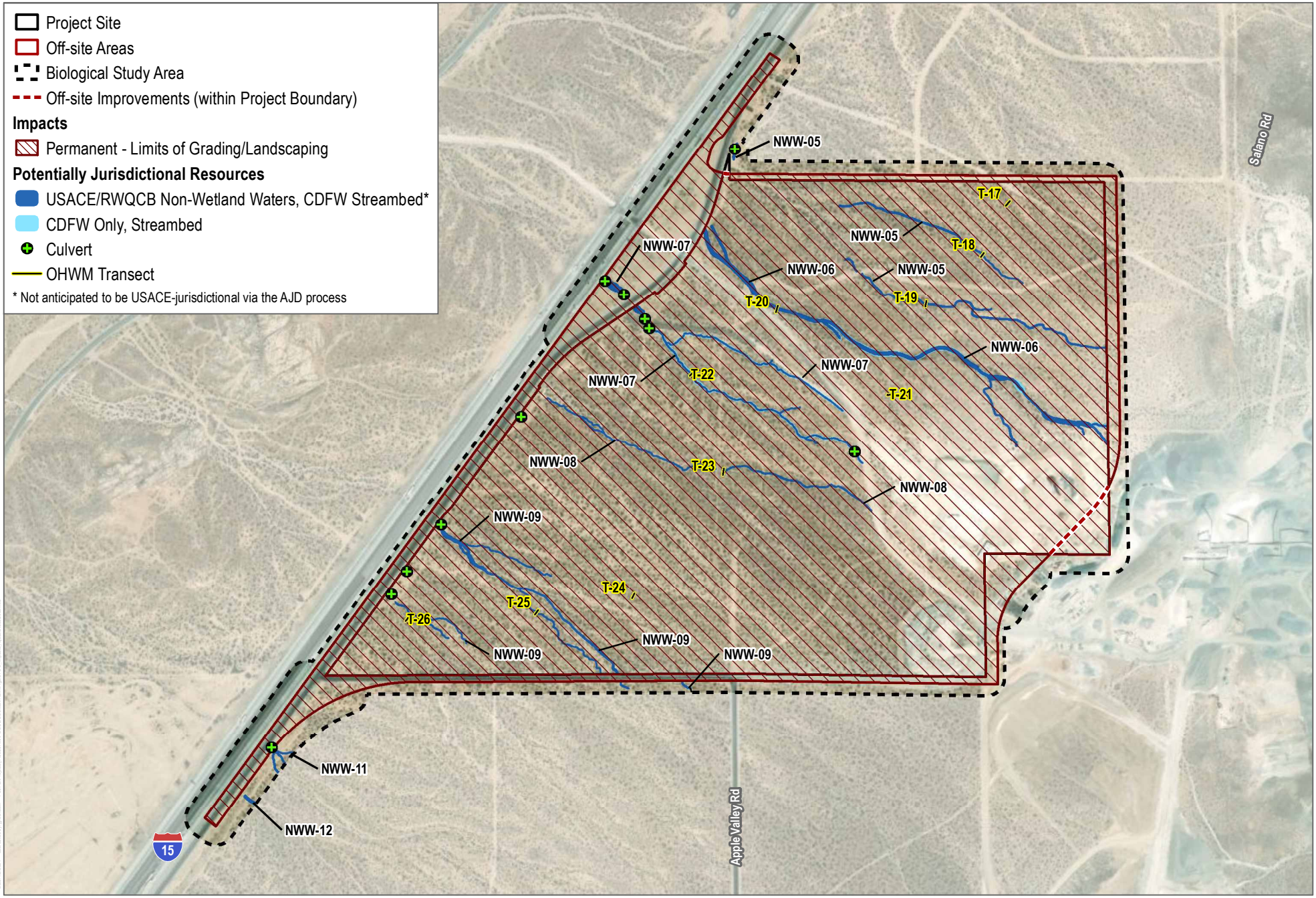

SOURCE: County of San Bernardino; Open Street Map; ESRI World Imagery 2022

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FIGURE 4.3-5

Impacts to Jurisdictional Aquatic Resources

Inland Empire North Logistics Center Apple Valley Project

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4.4 Cultural, Tribal Cultural, and Paleontological Resources

This section describes the existing conditions related to cultural, tribal cultural, and paleontological resources of the Inland Empire North Logistics Center Apple Valley Project (Project) site, identifies associated regulatory requirements, evaluates the potential Project and cumulative impacts, and provides mitigation measures for any significant or potentially significant impacts related to implementation of the Project.

In addition to the documents incorporated by reference (see Section 2.7, Documents Incorporated by Reference, of this environmental impact report [EIR]), the following analysis is based, in part, on the following sources:

- CONFIDENTIAL Cultural Resources Technical Report, prepared by PaleoWest, LLC in September 2022 (Appendix D) (this appendix is confidential and not available for public review due the inclusion of sensitive archaeological records data protected by law)
- Paleontological Resource Assessment, prepared by PaleoWest, LLC in January 2023 (Appendix E)
- Geotechnical Investigation Report, prepared by Leighton Consulting, Inc. in February 2023 (Appendix F)

In addition to the sources above, the evaluation of potential impacts to Tribal Cultural Resources is based on the background research conducted to inform this analysis and the results of formal tribal notification/consultation completed by the Town of Apple Valley (Town), as the lead agency, pursuant to Assembly Bill 52 (AB) 52 and Senate Bill 18 (SB) 18. Other referenced sources are listed in Section 4.4.6, References Cited.

Comments received in response to the Notice of Preparation (NOP) included concerns regarding cultural or tribal cultural resources are addressed in this section. A copy of the NOP and comments received is provided in Appendix A.

4.4.1 Existing Conditions

This section briefly describes the existing natural conditions on the Project site, the results of the California Historical Resources Information System (CHRIS) and Native American Heritage Commission (NAHC) Sacred Lands File (SLF) searches, informal tribal outreach, archaeological pedestrian survey, general background research; and a review of the geotechnical report that addresses the Project site; finally, results of the formal tribal consultation process completed by the lead agency, the Town of Apple Valley (Town), pursuant to California Assembly Bill 52 and Senate Bill 18. In addition, this section briefly describes the geological setting of the Project site and the results of the Natural History Museum of Los Angeles County (NHMLA) paleontological records search and geological map and paleontological literature and database review.

The Project is proposed to include construction of two industrial/warehouse buildings and associated improvements on an approximately 178--acre property including on-site improvements of loading docks, truck and vehicle parking, and landscaped areas. Proposed off-site improvements include to roadways located within the vicinity of the Project at Falchion Road between Outer Highway 15 and Apple Valley Road, Norco Street between Outer Highway 15 and Apple Valley Road, Outer Highway 15 between Falchion Road and Norco Street, and Apple Valley Road between Falchion Road and Norco Street on approximately 22.4 acres. The Project would also require a General Plan Amendment to modify the Town's Circulation Element for realignment of Apple Valley Road.

The Project site is located in the southwestern portion of the Mojave Desert geomorphic province. The Mojave Desert is a broad interior region of isolated mountain ranges separated by expanses of desert plains, bordered and controlled by two prominent faults, the Garlock fault to the northwest and the San Andreas fault to the southwest (California Geological Survey 2002).

The existing Project site generally consists of vacant and undeveloped land, as well as disturbed land, unpaved roads, and an extant structure associated with the mining facility located directly east and southeast of the Project site. Ground surface cover within the Project site, at the time field surveys were conducted, consisted of low to moderate vegetation densities of native brush and shrub growth and Joshua trees located throughout the site. The site consists of a series of small rolling hills/dunes with surface elevations ranging between approximately 2,820 and 3,020 feet above mean sea level (amsl). Seasonal unnamed washes were also present within the Project site including the northeast-southwest trending Bell Mountain Wash, a tributary of the Mojave River, located over 0.25 miles west and northwest of the Project site. The confluence of Bell Mountain Wash and the Mojave River is approximately 1.5 miles southwest of the Project site.

Background Research

CHRIS Records Search

On July 5, 2022, in-person records search of the CHRIS database on file at the South Central Coast Information Center (SCCIC), located on the campus of California State University, Fullerton was conducted. The search included any previously recorded cultural resources and investigations within a 0.5-mile radius of the Project site. The confidential records search results are provided in Appendix D of this Draft EIR.[1]

Previously Conducted Cultural Resource Studies

Results of the CHRIS database records search indicate that 37 previous cultural resource studies have been conducted within the 0.5-mile records search area between 1976 and 2014. Of these, three studies address portions of the Project site. The entirety (100%) of the Project site has been previously subjected to cultural resource studies. A detailed listing of all previous cultural resource studies within the Project's records search area is provided in Table 4-1 and confidential Appendix D.

Previously Recorded Cultural Resources

The SCCIC records indicate that 13 cultural resources have been previously recorded within a 0.5-mile radius of the Project site. Of these, five resources were identified within the Project site including two historic period roads (P-36-012649/CA-SBR-012348H and P-36-012652/CA-SBR-012351H); one historic period abandoned transmission line segment (P-36-012655/CA-SBR-012354H); and two historic period archaeological sites (P-36-012651/CA-SBR-012350H and P-36-012657/CA-SBR-012356H). No prehistoric resources were identified within the Project site or the 0.5-mile records search radius. A detailed listing of all cultural resources previously recorded within the Project's records search area is provided in confidential Appendix D. Provided below is a brief summary of these resources, including their CRHR and/or NRPH eligibility; more detailed site summaries are provided in Section 4.2 of confidential Appendix D.

[1] The confidential records search results which contains sensitive information related to the location of cultural sites is on file with the Town and is available for review by eligible individuals.

P-36-012649/CA-SBR-012348H

P-36-012649/CA-SBR-012348H is a 0.6-mile segment of a historic period dirt road that was originally used to access the Victorville Lime Rock Company and Riverside Cement Company located east and southeast of the Project site. The road was developed in the 1940s and was significantly altered between 1957 and 1958. The resource was previously recommended as not eligible for listing in the CRHR.

P-36-012651/CA-SBR-012350H

P-36-012651/CA-SBR-012350H consists of various historic period building foundations and features associated with the Victorville Lime Rock Company Mining Quarry and Plant, established in 1924. The site includes archaeological resources that date between circa 1940 and 1985. Because the site retains very little integrity, the resource was previously recommended as not eligible for listing in the CRHR.

P-36-012652/ CA-SBR-012351H

P-36-012652/ CA-SBR-012351H is an approximately 0.9-mile-long single-track dirt road that originally led from Stoddard Wells Road to the Victorville Lime Rock Company Mining Quarry and Plant. The road was first illustrated on a 1917 historical map and by the late 1950s had been significantly altered. The resource was previously recommended as not eligible for listing in the CRHR.

P-36-012655/ CA-SBR-012354H

P-36-012655/ CA-SBR-012354H is a segment of an abandoned historic period transmission line. The powerline was constructed circa 1940 by the Victorville Lime Rock Company to power the mining complex and was later replaced in 1975. This resource was previously recommended as not eligible for listing in the CRHR.

P-36-012657/CA-SBR-012356H

P-36-012657/CA-SBR-012356H consists of a historic period archaeological site comprised of household refuse dating to the mid-1950s and appears to represent a single depositional event. This resource was previously recommended as not eligible for listing in the CRHR.

Historical Aerial Photographs and Bureau of Land Management General Land Office Records Review

Aerial Photographs

A review of historical aerial photographs indicate that the Project site has not been developed through the present day with the exception of the mining/quarrying facility and associated access roads shown in the southeast corner of the Project site. Development observed within the vicinity of the Project site includes the construction of Interstate 15 between 1957 and 1958 and the various mines and quarries east of the Project site.

Bureau of Land Management General Land Records

A review of Bureau of Land Management (BLM) General Land Office (GLO) records indicate that portions of the Project site are part of a serial patent for 1,059.32 acres issued to the State of California in 1951 by authority of

the January 21, 1927 Indemnity Selections. However, the records do not appear to show any buildings or structures within the Project site related to that patent.

Geotechnical Report Review

The report, Geotechnical Investigation Proposed Industrial Warehouse Development, Parcel A, Assessor's Parcel Number (APN) 0472-031-08, North of Falchion Road and East of Interstate 5, Apple Valley, San Bernardino County, California, documents the subsurface geological conditions and infiltration rates of the Cordova Complex site, completed by Leighton Consulting, Inc. on February 1, 2023 (Appendix F).

The report details the results of 19 subsurface exploratory borings (LB-1 through LB-19) and 4 permeameter tests (IT-1 through IT-4) performed between September 12 and 14, 2022 and September 21 and September 22, 2022, using a truck-mounted drill-rig equipped with an 8-inch diameter hollow stem auger. These subsurface exploratory investigations were placed at accessible locations within the Project site (see Figure 2, Geotechnical Map, in Appendix F). The subsurface exploratory excavations were advanced to depths between approximately 14 to 51.5 feet below ground surface (bgs) to determine subsurface geological conditions within the Project site. According to the boring logs, the Project site is underlain by older Quaternary alluvium (Qoa); however, one location (LB-9), encountered undocumented fill soils overlying the alluvial soils. The older Quaternary alluvium is described as generally consisting of silty sand and sand with silt, with few samples containing 5% to 25% gravel. Additionally, the Geotechnical Investigation (Appendix F) notes that at the surface, soils generally consisted of poorly graded sands, poorly graded sands with silt, and silty sands. Undocumented fill soils are described as loose, poorly graded sand with silt. No bedrock was encountered at any of the locations investigated. A summary of the subsurface investigative results for the Project site is provided in Table 4.4-1, below.

Table 4.4-1. Summary of Subsurface Investigations for Project Site

Boring No.	Location of Investigation	Depths of Fill Soils	Depths of Native Soils	Terminated/Refusal Depth
LB-1	Southern portion of East Building 2	N/A	0-30.3 feet bgs	~30 feet bgs
LB-2	Southern portion of East Building 2	N/A	0-21.5 feet bgs	21.5 feet bgs
LB-3	Southern portion of East Building 2	N/A	0-16.5 feet bgs	16.5 feet bgs
LB-4	Southern portion of East Building 2	N/A	0-51.5 feet bgs	51.5 feet bgs
LB-5	Central portion of East Building 2	N/A	0-21.5 feet bgs	21.5 feet bgs
LB-6	Central portion of East Building 2	N/A	0-30.5 feet bgs	30.5 feet bgs
LB-7	Northern portion of East Building 2	N/A	0-16.5 feet bgs	16.5 feet bgs
LB-8	Northern portion of East Building 2	N/A	0-26.5 feet bgs	26.5 feet bgs
LB-9	Northwestern quadrant of site	0-6.5 bgs	6.5-30.5 feet bgs	30.5 feet bgs
LB-10	Northern portion of East Building 2	N/A	0-25.5 feet bgs	25.5 feet bgs
*LB-11	—	—	—	—
LB-12	Southern portion of East Building 1	N/A	0-26.5 feet bgs	26.5 feet bgs
LB-13	Southern portion of East Building 1	N/A	0-31.5 feet bgs	31.52 feet bgs
LB-14	Southern portion of East Building 1	N/A	0-14 feet bgs	14 feet bgs
LB-15	Southern portion of East Building 1	N/A	0-31 feet bgs	31 feet bgs
LB-16	Northern portion of East Building 1	N/A	0-31.5 feet bgs	31.5 feet bgs
LB-17	Northern portion of East Building 1	N/A	0-51 feet bgs	51 feet bgs
LB-18	Northern portion of East Building 1	N/A	0-20.5 feet bgs	20.5 feet bgs

Table 4.4-1. Summary of Subsurface Investigations for Project Site

Boring No.	Location of Investigation	Depths of Fill Soils	Depths of Native Soils	Terminated/Refusal Depth
LB-19	Northern portion of East Building 1	N/A	0-17.5 feet bgs	17.5 feet bgs
IT-1	Southwestern limits of site	N/A	0-15.5 feet bgs	15.5 feet bgs
IT-2	Northern limits of site	N/A	0-15 feet bgs	15 feet bgs
IT-3	Southwest of East Building 1	N/A	0-15 feet bgs	15 feet bgs
IT-4	Northeastern limits of site	N/A	0-15 feet bgs	15 feet bgs

Notes:
*= denotes record not available; N/A = not applicable; bgs = below ground surface; ~ denotes approximate.

Archaeological Survey Methods and Results

An archaeological pedestrian survey was performed for the Project site on August 24 and 31, 2022. The survey was conducted utilizing transects spaced between 10 to 15 meters (approximately 33 and 50 feet) apart. In areas of exposed subsurface soils, surveyors performed an opportunistic survey. Ground visibility was good to excellent (70% to 100%). All of the Project area east of the I-15 was surveyed except for 23.5 acres in the southeastern portion of the Project site adjacent to the CalPortland mining facility (Figure B.1 in Appendix B). This area contained the previously documented remains of the Victorville Lime Rock Company Mining Quarry and Plant (P-36-012651). Due to safety concerns, which included active mining activities and live explosions on the adjacent CalPortland mine, the site could not be revisited at the time of the survey. Furthermore, the area could not be visually inspected from a distance due to the presence of large earthen berms surrounding the facility. To assess the current condition of P-36-012651, PaleoWest inspected the area using recent Google Earth imagery. Results of this examination indicate that the unsurveyed portion of the Project area that contains P-36-012651 has been heavily disturbed by mining activities and the potential to preserve previously unidentified cultural resources is low.

During the survey, the five previously recorded resources documented in the CHRIS records as within the Project site (P-36-012649/CA-SBR-012348H, P-36-012652/CA-SBR-012351H, P-36-012655/CA-SBR-012354H P-36-012651/CA-SBR-012350H and P-36-012657/CA-SBR-012356H), were revisited to determine current site conditions and associated records were updated, as appropriate. Surveyors determined that five resources appear consistent with the original documentation and findings of not eligible for listing in the CRHR and updated each record to reflect the present findings. No further cultural considerations are required for these resources.

Native American Coordination

Sacred Lands File Search

A search of the NAHC's SLF database was requested on June 14, 2022, to determine the presence of any reported Native American cultural resources within proximity of the Project site. The NAHC SLF records search result was received on July 21, 2022, and was positive; however, it is important to note that the SLF record is maintained at a public land survey system section level, which indicates a recorded sacred site could be anywhere within a 1-square-mile (640-acre) area and, therefore, does not necessarily equate to the existence of resources within the specific area occupied by the Project site. Additionally, it should be noted that the SLF maintained by the NAHC represent a curation of "ancient places of special religious or social significance to Native Americans and known ancient graves and cemeteries of Native Americans on private and public lands in California" (nahc.gov 2023) provided by Tribal entities and Native American representatives. For various reasons, Tribal entities and Native American

representatives do not always report sacred lands or TCRs to the NAHC; as such, the NAHC's SLF is not necessarily a comprehensive list of known TCRs and searches of the SLF must be considered in concert with other research and not used as a sole source of information regarding the presence of TCRs.

In addition to the SLF results, the NAHC identified 14 Native American individuals/entities who would potentially have specific knowledge as to whether or not Native American cultural resources are identified within the Project site that could be at-risk. Informal Tribal outreach letters were sent to each NAHC-listed contact, followed by phone calls. As a result of the informal outreach letters, PaleoWest, Inc. received two responses. Table 4.4-2, below, documents the results of the informal tribal outreach between PaleoWest, Inc. and the two responding NAHC-listed contacts. Documentation of the NAHC SLF search results and informal outreach record is provided in Appendix A of confidential Appendix D in this Draft EIR.

Table 4.4-2. Summary of Informal Tribal Outreach with NAHC-Listed Contacts

Contact Name and Tribe	Contact Dates/Method	Record of Correspondence
Mark Cochrane, Co-Chairperson: Serrano Nation of Mission Indians	**Outreach Letter**: Sent August 25, 2022 **Follow-Up Phone Call**: August 25, 2023	**August 25, 2022:** Co-Chairperson Cochrane responded via phone call to the outreach letter and requested that he and Co-Chair Wayne Walker be notified in the event of any discovery of cultural materials.
Robert Robinson, Chairperson: Kern Valley Indian Community	**Outreach Letter**: Sent August 25, 2022 **Follow-Up Phone Call**: Not conducted	**August 25, 2022:** Chairperson Robinson responded via phone call and stated that the Tribe has concerns and that the Project site is within areas with a high probability of habitation sites occurring there. Chairperson Robinson recommended archaeological and Tribal monitoring during ground disturbing activities.

Assembly Bill 52 and Senate Bill Consultation

The Project is subject to compliance with Assembly Bill (AB) 52, which requires consideration of impacts to tribal cultural resources (TCRs) as part of the CEQA process, and that the lead agency notify California Native American Tribal representatives that have requested notification who are traditionally or culturally affiliated with the geographic area of the Project site. The Project is also subject to Senate Bill (SB) 18 which requires local governments to invite California Native American Tribal representatives to participate in consultation about proposed General Plan and Specific Plan adoptions or amendments. The Town is considering an amendment to the General Plan and as such, also initiated SB 18 consultation. The Town sent notification letters pursuant to AB 52 and SB 18 on September 27, 2023, via United States Postal Service certified mailing and email. The notification letters contained a Project description, outline of AB 52 and SB 18 timing, an invitation to consult, a Project site plan, and contact information for the appropriate lead agency representative. AB 52 allows tribes 30 days and SB 18 allows tribes 90 days after receiving notification to request consultation. If a response is not received within the allotted 30 or 90 days, for AB 52 and SB 18, respectively, it can be assumed consultation is declined.

The Town notified nine California Native American tribal representatives and received one response from the following tribal entity: the Yuhaaviatam of San Manuel Nation Cultural Resources Department (YSMN; formerly the San Manuel Band of Mission Indians). Table 4.4-3 summarizes the results of the AB 52 and SB 18 notification and

consultation efforts for the Project. All records of correspondence related to AB 52 and SB 18 notification and any subsequent consultation are on file with the Town.

Table 4.4-3. Summary of Assembly Bill 52 and Senate Bill 18 Tribal Outreach Results

Native American Tribal Representatives	Consultation Record
Ann Brierty, Tribal Historic Preservation Officer: Morongo Band of Mission Indians	No response has been received to date.
Robert Martin, Chairperson: Morongo Band of Mission Indians	No response has been received to date.
Darrell Mike, Chairperson: Twenty-Nine Palms Band of Mission Indians	No response has been received to date.
Anthony Madrigal, Tribal Historic Preservation Officer: Twenty-Nine Palms Band of Mission Indians	No response has been received to date.
Jamie Nord, Tribal Archaeologist: Yuhaaviatam of San Manuel Nation Cultural Resources Department (YSMN) *formerly the San Manuel Band of Mission Indians*	September 28, 2023: A representative from the Tribe, Jamie Nord, responded via email acknowledging receipt of the notification letter. Mr. Nord stated that due to the nature and location of the Project, the Tribe did not have any concerns with Project implementation and requested that the mitigation measures provided within the email be made part of the Project permit/plan/conditions. No additional record of consultation has been provided to date.
Doug Welmas, Tribal Chairman: Cabazon Band of Mission Indians	No response has been received to date.
Alexandra McCleary: San Manuel Band of Mission Indians	No response has been received to date.
Donna Yokum, Chairperson; San Fernando Band of Mission Indians	No response has been received to date.
Jill McCormick, Historic Preservation Officer: Quechan Tribe of the Fort Yuma	No response has been received to date.
Mark Cochran, Co-Chairperson: Serrano Nation of Mission Indians	No response has been received to date.
Robert Robinson: Kern Valley Indian Community	No response has been received to date.
Sierra Pencille, Chairperson: Chemehuevi Indian Tribe	No response has been received to date.
Wayne Walker, Co-Chairperson: Serrano Nation of Mission Indians	No response has been received to date.

Paleontological Resources

The following paragraphs relating to paleontological resources are a summary of the paleontological resources assessment conducted by PaleoWest (Appendix E). To determine the geology and stratigraphy of the area and assist in determining the paleontological sensitivity of the Project site, a review of geological mapping was conducted. Geologic units are considered "sensitive" for paleontological resources if they are known to contain significant fossils anywhere in their extent. Therefore, a search of pertinent local and regional museum repositories for paleontological

localities within and nearby the Project area is necessary to determine whether fossil localities have been previously discovered within a particular rock unit. For this Project, a formal museum records search was conducted by the NHMLA. Informal records searches were also conducted of the online University of California Museum of Paleontology Collections and San Diego Natural History Museum Collections, the online Paleobiology Database and FAUNMAP, and other published and unpublished geological and paleontological literature of the area.

According to surficial geological mapping by Hernandez et al. (2008) at a 1:24,000 scale, the Project site is underlain by four geological units (from youngest to oldest): recent artificial fill and disturbed areas (map unit af), Holocene (recent to approximately 11,700 years ago; Cohen et al. [2023]) alluvial fan deposits (map unit Qf), late Pleistocene (approximately 11,700 years ago to 129,000 years ago; Cohen et al. [2023]) old alluvial deposits (map unit Qoa), and Cretaceous (approximately 66 million years ago to 145 million years ago; Cohen et al. [2023]) granodiorite.

Where mapped, the artificial fill or disturbed sediments have no paleontological resource sensitivity of potential owing to the disturbed nature and young age. The Holocene alluvial fan deposits, which are characterized by poorly sorted, silty lithic-arkosic sand and angular to subangular gravel that is not consolidated (Hernandez et al. 2008) has low paleontological resource sensitivity or potential that increases with depth below the surface where they become old enough to preserve fossils. The Pleistocene old alluvial deposits, which underlie the majority of the Project site, consist of moderately indurated, fine- to medium-grained sand and fine-to-medium gravel from inactive alluvial fans (Hernandez et al. 2008). Similar Pleistocene sedimentary deposits have yielded significant paleontological resources within San Bernardino County. These fossils include, but are not limited to ground sloth, deer, mammoth, camel, horse, bison, badger, mole, rabbit, gray fox, coyote, snake, and rodent (Jefferson 1991; Miller 1971; Reynolds and Reynolds 1991), and therefore has high paleontological resource sensitivity or potential. Finally, the Cretaceous granodiorite, mapped in the foothills along the southeastern edge of the Project site, has no paleontological resource sensitivity or potential due to the intense heat and pressure associated with the formation of plutonic igneous rocks.

A paleontological records search was requested from the NHMLA, and the results were received on December 11, 2022. The museum did not report any fossil localities from within the Project site, but they do have nearby localities from the same deposits (Pleistocene sedimentary deposits) that occur within the Project site. The NHMLA records search results are summarized in Table 4.4-4 below.

Table 4.4-4. Summary of NHMLA Fossil Localities Near the Project Site

Locality Number	Geological Unit	Taxa	Depth Below the Surface
LACM* VP** 3498	Shoemaker Gravel Formation	Horse (*Equus*), Deer (Cervidae), Antelope (Antelocapridae	Unknown
LACM VP 3352	Shoemaker Gravel Formation	Horse (*Equus*)	Unknown
LACM VP 3353	Shoemaker Gravel Formation	Horse (*Equus*)	Unknown
LACM VP 1224	Shoemaker Gravel Formation	Camel Family (Camelidae)	Unknown
LACM VP 7786	Alluvium	Vole (*Microtus mexicanus*)	10–11 feet
LACM VP CIT*** 209	Shoemaker Gravel Formation	Mammoth (*Mammuthus*), Horse (*Equus*)	Unknown

Notes:
* Los Angeles County Museum
** Vertebrate Paleontology
*** California Institute of Technology

In addition to the NHMLA fossil localities, Scott et al. (1997) reported Harlan's ground sloth (*Paramylodon harlani*), short-faced bear (*Arctodus simus*), southern mammoth (*Mammuthus meridionalis*), horse (*Equus*), giant camel (*Titanotylopus*), western camel (*Camelops*), stilt-legged camel (*Hemiauchenia*), meadow vole (*Microtus*), and rodent (Rodentia) from Pleistocene fluvial (riverine) and lacustrine (lake) beds in Victorville, California.

4.4.2 Relevant Regulations, Plans, Policies, and Ordinances

Federal

There are no federal regulations pertaining to cultural or tribal cultural resources that would apply to the Project.

State

The California Register of Historical Resources

In California, the term "historical resource" includes, but is not limited to, "any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California" (PRC Section 5020.1[j]). In 1992, the California legislature established the CRHR "to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change" (PRC Section 5024.1[a]). The criteria for listing resources on the CRHR were expressly developed to be in accordance with previously established criteria developed for listing in the NRHP, enumerated below. A resource is considered historically significant if it (i) retains "substantial integrity," and (ii) meets at least one of the following criteria (PRC Section 5024.1[c][1–4]):

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
2. Is associated with the lives of persons important in our past.
3. 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.
4. Has yielded, or may be likely to yield, information important in prehistory or history.

In order to understand the historic importance of a resource, sufficient time must have passed to obtain a scholarly perspective on the events or individuals associated with the resource. A resource less than 50 years old may be considered for listing in the CRHR if it can be demonstrated that sufficient time has passed to understand its historical importance (see 14 CCR 4852[d][2]).

The CRHR protects cultural resources by requiring evaluations of the significance of prehistoric and historic resources. Prehistoric resources are those that pre-date written records, while historic resources reflect written records or recorded events of the past. The criteria for the CRHR are nearly identical to those for the NRHP, and properties listed or formally designated as eligible for listing in the NRHP are automatically listed in the CRHR, as are the state landmarks and points of interest. The CRHR also includes properties designated under local ordinances or identified through local historical resource surveys.

California Environmental Quality Act – Cultural Context

The following CEQA statutes (PRC Section 21000 et seq.) and CEQA Guidelines (14 CCR 15000 et seq.) are of relevance to the analysis of archaeological, historic, and TCRs:

- PRC Section 21083.2(g) defines "unique archaeological resource."
- PRC Section 21084.1 and CEQA Guidelines Section 15064.5(a) define "historical resources." In addition, CEQA Guidelines Section 15064.5(b) defines the phrase "substantial adverse change in the significance of an historical resource"; it also defines the circumstances when a project would materially impair the significance of a historical resource.
- PRC Section 21074(a) defines "tribal cultural resources."
- PRC Section 5097.98 and CEQA Guidelines Section 15064.5(e) set forth standards and steps to be employed following the accidental discovery of human remains in any location other than a dedicated ceremony.
- PRC Sections 21083.2(b) and 21083.2(c) and CEQA Guidelines Section 15126.4 provide information regarding the mitigation framework for archaeological and historic resources, including examples of preservation-in-place mitigation measures. Preservation in place is the preferred manner of mitigating impacts to significant archaeological sites because it maintains the relationship between artifacts and the archaeological context and may also help avoid conflict with religious or cultural values of groups associated with an archaeological site.

Under CEQA, a project may have a significant impact on the environment if it may cause "a substantial adverse change in the significance of an historical resource" (PRC Section 21084.1; 14 CCR 15064.5[b]). If a site is listed or eligible for listing in the CRHR, or included in a local register of historic resources, or identified as significant in a historical resources survey (meeting the requirements of PRC Section 5024.1[q]), it is a "historical resource" and is presumed to be historically or culturally significant for the purposes of CEQA (PRC Section 21084.1; 14 CCR 15064.5[a]). The lead agency is not precluded from determining that a resource is a historical resource even if it does not fall within this presumption (PRC Section 21084.1; 14 CCR 15064.5[a]).

A "substantial adverse change in the significance of an historical resource" reflecting a significant impact under CEQA means "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired" (14 CCR 15064.5[b][1]; PRC Section 5020.1[q]). In turn, the significance of a historical resource is materially impaired when a project does any of the following:

1. Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register; or
2. Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) of the PRC or its identification in an historical resources survey meeting the requirements of Section 5024.1(g) of the PRC, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
3. Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register [CRHR] as determined by a lead agency for purposes of CEQA (14 CCR 15064.5[b][2]).

Pursuant to these sections, the CEQA inquiry begins with evaluating whether a project site contains any "historical resources," then evaluates whether that project will cause a substantial adverse change in the significance of a historical resource such that the resource's historical significance is materially impaired.

If it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that they cannot be left undisturbed, mitigation measures are required (PRC Sections 21083.2[a]–[c]).

Section 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria (PRC Section 21083.2[g]):

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type.
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Impacts on non-unique archaeological resources are generally not considered a significant environmental impact (PRC Section 21083.2[a]; 14 CCR 15064.5[c][4]). However, if a non-unique archaeological resource qualifies as a TCR (PRC Sections 21074[c] and 21083.2[h]), further consideration of significant impacts is required.

Regarding paleontological resources, CEQA Guidelines require that all private and public activities not specifically exempted be evaluated against the potential for environmental damage, including effects to paleontological resources. Paleontological resources, which are limited, nonrenewable resources of scientific, cultural, and educational value, are recognized as part of the environment under these state guidelines. This analysis satisfies project requirements in accordance with CEQA (13 PRC 21000 et seq.) and Public Resources Code Section 5097.5 (Stats 1965, c 1136, p. 2792). This analysis also complies with guidelines and significance criteria specified by SVP (2010).

Paleontological resources are explicitly afforded protection by CEQA, specifically in Section VII(f) of CEQA Guidelines Appendix G, the "Environmental Checklist Form," which addresses the potential for adverse impacts to "unique paleontological resource[s] or site[s] or … unique geological feature[s]." This provision covers fossils of signal importance – remains of species or genera new to science, for example, or fossils exhibiting features not previously recognized for a given animal group – as well as localities that yield fossils significant in their abundance, diversity, preservation, and so forth. Further, CEQA provides that generally, a resource shall be considered "historically significant" if it has yielded or may be likely to yield information important in prehistory (PRC 15064.5 [a][3][D]). Paleontological resources would fall within this category.

CEQA Guidelines Section 15064.5 assigns special importance to human remains and specifies procedures to be used when Native American remains are discovered. As described below, these procedures are detailed in PRC Section 5097.98.

CEQA Guidelines Section 15064.5(b)(2)

Pursuant to these sections, the CEQA first evaluates evaluating whether a project site contains any "historical resources," then assesses whether that project will cause a substantial adverse change in the significance of a historical resource such that the resource's historical significance is materially impaired.

When a project significantly affects a unique archeological resource, CEQA imposes special mitigation requirements. Specifically, "[i]f it can be demonstrated that a project will cause damage to a unique archeological resource, the lead agency may require reasonable efforts to be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. Examples of that treatment, in no order of preference, may include, but are not limited to, any of the following:"

1. "Planning construction to avoid archeological sites."
2. "Deeding archeological sites into permanent conservation easements."
3. "Capping or covering archeological sites with a layer of soil before building on the sites."

California Public Resources Code Section 21083.2(b)(1)-(4)

If these "preservation in place" options are not feasible, mitigation may be accomplished through data recovery (California Public Resources Code Section 21083.2(d); 14 CCR 15126.4[b][3][C]). California Public Resources Code Section 21083.2(d) states that "[e]xcavation as mitigation shall be restricted to those parts of the unique archeological resource that would be damaged or destroyed by the project. Excavation as mitigation shall not be required for a unique archeological resource if the lead agency determines that testing or studies already completed have adequately recovered the scientifically consequential information from and about the resource, if this determination is documented in the environmental impact report."

California Environmental Quality Act – Paleontological Context

CEQA does not define "a unique paleontological resource or site." However, the Society of Vertebrate Paleontology (SVP) has provided guidance specifically designed to support state and Federal environmental review. The SVP broadly defines significant paleontological resources as follows (SVP 2010:11):

> "Fossils and fossiliferous deposits consisting of identifiable vertebrate fossils, large or small, uncommon invertebrate, plant, and trace fossils, and other data that provide taphonomic, taxonomic, phylogenetic, paleoecologic, stratigraphic, and/or biochronologic information. Paleontological resources are considered to be older than recorded human history and/or older than middle Holocene (i.e., older than about 5,000 radiocarbon years)."

Significant paleontological resources are determined to be fossils or assemblages of fossils that are unique, unusual, rare, diagnostically important, or common but have the potential to provide valuable scientific information for evaluating evolutionary patterns and processes, or which could improve our understanding of paleochronology, paleoecology, paleophylogeography, or depositional histories. New or unique specimens can provide new insights into evolutionary history; however, additional specimens of even well represented lineages can be equally important for studying evolutionary pattern and process, evolutionary rates, and paleophylogeography. Even unidentifiable material can provide useful data for dating geologic units if radiometric dating is possible. As such, common fossils (especially vertebrates) may be scientifically important and therefore considered significant.

California Health and Safety Code Section 7050.5

California law protects human remains, Native American burials, and associated grave goods, regardless of their antiquity, and provides for the sensitive treatment and disposition of those remains. California Health and Safety Code Section 7050.5 requires that if human remains are discovered in any place other than a dedicated cemetery, no further disturbance or excavation of the site or nearby area reasonably suspected to contain human remains shall occur until the county coroner has examined the remains and determined that the remains are not subject to the provisions of Section 27491 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the PRC (PRC Section 7050.5[b]). If the coroner determines or has reason to believe the remains are those of a Native American, the coroner must contact the NAHC within 24 hours (PRC Section 7050.5[c]). The NAHC will notify the most likely descendant (MLD). With the permission of the landowner, the MLD may inspect the site of discovery. The inspection must be completed within 48 hours of notification of the MLD by NAHC. The MLD may recommend means of treating or disposing of, with appropriate dignity, the human remains and items associated with Native Americans.

Assembly Bill 52

Assembly Bill 52 of 2014 (AB 52) amended PRC Section 5097.94 and added PRC Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3.

Consultation with Native Americans

AB 52 formalizes the consultation process between lead agencies and tribal representatives, requiring the lead agency to initiate consultation with California Native American groups that are traditionally and culturally affiliated with a project area. This includes tribes that may not be federally recognized. Lead agencies are required to begin consultation prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report.

Tribal Cultural Resources

Section 4 of AB 52 adds Sections 21074 (a) and (b) to the PRC, addressing tribal cultural resources (TCRs) and cultural landscapes. Section 21074 (a) defines tribal cultural resources as one of the following:

1. Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
   a. Included or determined to be eligible for inclusion in the California Register of Historical Resources.
   b. Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.
2. 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 Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

Section 1 (a)(9) of AB 52 establishes that "a substantial adverse change to a tribal cultural resource has a significant effect on the environment." Effects on tribal cultural resources should be considered under CEQA. Section 6 of AB 52 adds Section 21080.3.2 to the PRC, which states that parties may propose mitigation measures "capable of avoiding or substantially lessening potential significant impacts to a tribal cultural resource or

alternatives that would avoid significant impacts to a tribal cultural resource." Further, if a California Native American tribe requests consultation regarding project alternatives, mitigation measures, or significant effects to tribal cultural resources, the consultation shall include those topics (PRC Section 21080.3.2[a]). The environmental document and the mitigation monitoring and reporting program (where applicable) shall include any mitigation measures that are adopted (PRC Section 21082.3[a]).

Senate Bill 18

The Local and Tribal Intergovernmental Consultation process, commonly known as SB 18, was signed into law September of 2004 and took effect March 1, 2005. SB 18 refers to PRC Sections 5097.9 and 5097.993, which define cultural places as:

- Native American sanctified cemetery place of worship, religious or ceremonial site, or sacred shrine (PRC Section 5097.9).
- Native American historic, cultural, or sacred site that is listed or may be eligible for listing in the California Register of Historic Resources pursuant to Section 5024.1, including any historic or prehistoric ruins, any burial ground, any archaeological or historic site (PRC Section 5097.993).

SB 18 established responsibilities for local governments to contact, provide notice to, refer plans to, and consult with California Native American tribes that have been identified by the NAHC and if that tribe requests consultation after local government outreach as stipulated in Government Code Section 65352.3. The purpose of this consultation process is to protect the identity of the cultural place and to develop appropriate and dignified treatment of the cultural place in any subsequent project. The consultation is required whenever a general plan, specific plan, or open space designation is proposed for adoption or to be amended. Once local governments have sent notification, tribes are responsible for requesting consultation. Pursuant to Government Code Section 65352.3(a)(2), each tribe has 90 days from the date on which they receive notification to respond and request consultation.

In addition to the requirements stipulated previously, SB 18 amended Government Code Section 65560 to "allow the protection of cultural places in open space element of the general plan," and amended Civil Code Section 815.3 to add "California Native American tribes to the list of entities that can acquire and hold conservation easements for the purpose of protecting their cultural places."

Native American Historic Cultural Sites

The Native American Historic Resources Protection Act (California PRC Section 5097 et seq.) addresses the disposition of Native American burials in archaeological sites and protects such remains from disturbance, vandalism, or inadvertent destruction; establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project; and establishes the NAHC to resolve disputes regarding the disposition of such remains. In addition, the Native American Historic Resource Protection Act makes it a misdemeanor punishable by up to 1 year in jail to deface or destroy a Native American historic or cultural site that is listed or may be eligible for listing in the CRHR.

California Native American Graves Protection and Repatriation Act

The California Native American Graves Protection and Repatriation Act (California Repatriation Act), enacted in 2001, requires all state agencies and museums that receive state funding and that have possession or control over

collections of human remains or cultural items, as defined, to complete an inventory and summary of these remains and items on or before January 1, 2003, with certain exceptions. The California Repatriation Act also provides a process for the identification and repatriation of these items to the appropriate tribes.

PRC Section 5097.5 and 30244

Section 5097.5 of the Public Resources Code (PRC) states:

> "No person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor. As used in this PRC section, 'public lands' means lands owned by, or under the jurisdiction of, the state or any city, county, district, authority, or public corporation, or any agency thereof."

Consequently, public agencies are required to comply with PRC 5097.5 for their own activities, including construction and maintenance, as well as for permit actions (e.g., encroachment permits) undertaken by others.

Local

Town of Apple Valley General Plan

The Town of Apple Valley General Plan contains the following goals and policies that address cultural resources and are applicable to the Project.

Archaeological and Historic Resources Element

Goal: That all elements of the Town's cultural heritage, including archaeological and historic sites, artifacts, traditions and other elements, shall be professionally documented, maintained, preserved, conserved and enhanced.

Policy 1A: Early in the planning process, the Town shall implement its obligation to identify, document and assess archaeological, historical and cultural resources that proposed development projects and other activities may affect.

Policy 1B: The Town shall establish and maintain a confidential inventory of archaeological and historical resources within the Town, including those identified in focused cultural resources studies.

Policy 1C: The Town shall, to the greatest extent possible, protect sensitive archaeological and historic resources from vandalism and illegal collection. Public participation in and appreciation of the Town's cultural heritage shall be encouraged.

Policy 1D: Public participation in and appreciation of the Town's cultural heritage shall be encouraged.

The Town of Apple Valley General Plan discusses the potential for recovery of significant paleontological resources within the Town and sphere of influence based on surficial geological mapping. However, no goals or policies are detailed in the plan for paleontological resources. Notwithstanding, the Town of Apple Valley General Plan (Town of Apple Valley 2009), Chapter III: Environmental Resources, states the following:

> "The potential for geological formations to produce fossils is evaluated based on what fossil resources have been produced in the past at other nearby locations of similar geologic composition. There are substantial exposures of Mesozoic-age (65,000,000 to 245,000,000 years ago) rocks in more elevated portions of the Town that may contain no fossils. Shallow grading of younger Quaternary alluvium that occurs throughout most of the area is not likely to reveal significant fossil remains. Potential for the presence of significant non-renewable paleontological resources exists where surface or subsurface Pleistocene-age (1,808,000 to 11,550 years ago) soils occur in the planning area. High priority is also given to older sediments along the Mojave River and at unknown depth below the surface. Based on research of surface deposits, the soils in the planning area, which are relatively young, have a low potential for containing significant fossil remains. Surface deposits may in some areas constitute only a "veneer cover" that directly overlays older sediments; however, research indicates that no fossils have been reported in Town. Reports have, however, identified localities with fossil resources of an age that is similar soil deposits to those that occur in the Town and Sphere of Influence. In the overall, research indicates that there is a range of likelihood from low to high of encountering paleontological resources during future development projects; as discussed above, the potential depends on the location and sediments encountered."

4.4.3 Thresholds of Significance

The significance criteria used to evaluate the Project impacts to cultural and tribal cultural resources are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to cultural and tribal cultural resources would occur if the Project 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 resource pursuant to Section 15064.5.
C. Disturb any human remains, including those interred outside of dedicated cemeteries.
D. 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 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).
E. 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 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.

F. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

G. Result in cumulatively considerable impacts related to cultural, tribal cultural, or paleontological resources.

4.4.4 Impact Analysis

The section identifies the significance criteria used in evaluating the impacts, describes the methods used in conducting the analysis, and evaluates the Project's impacts and contribution to significant cumulative impacts, if any are identified related to cultural, tribal cultural, and paleontological resources.

Threshold A: Would the Project cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5?

Less than Significant Impact with Mitigation Incorporated. As defined by the CEQA Guidelines (14 CCR 15000 et seq.), a "historical resource" is considered to be a resource that is listed in or eligible for listing in the National Register of Historic Places (NRHP) or California Register of Historical Resources (CRHR), has been identified as significant in a historical resource survey, or is listed on a local register of historical resources. Under CEQA, a project may have a significant effect on the environment if it may cause "a substantial adverse change in the significance of an historical resource" (Public Resources Code Section 21084.1; 14 CCR 15064.5[b]). If a site is listed or eligible for listing in the CRHR, or included in a local register of historic resources, or identified as significant in a historical resources survey (meeting the requirements of Public Resources Code Section 5024.1[q]), it is a historical resource and is presumed to be historically or culturally significant for the purposes of CEQA (Public Resources Code Section 21084.1; 14 CCR 15064.5[a]).

A review of historical aerial photographs indicate that the Project site has not been developed with the exception of the stockpiling activities, metal storage structure, and associated access roads in the southeast corner of the Project site. Additionally, a review of the BLM GLO records do not appear to show any buildings or structures within the Project site related to that patent. There are no waterways shown as present within or adjacent to the Project site in historical aerials, however, the confluence of Bell Mountain Wash and the Mojave River is approximately 1.5 miles to the southwest of the Project site.

The CHRIS records search identified five previously recorded cultural resources within the Project site including two historic period roads (P-36-012649/CA-SBR-012348H and P-36-012652/CA-SBR-012351H); one historic period abandoned transmission line segment (P-36-012655/CA-SBR-012354)H; and two historic period archaeological sites (P-36-012651/CA-SBR-012350H and P-36-012657/CA-SBR-012356H). All five recorded cultural resources were previously recommended not eligible for listing in the CRHR. The five previously recorded cultural resources were revisited and the records updated, as appropriate, as part of the cultural resources survey conducted in support of the Project. Surveyors determined that the five resources appear consistent with the original documentation and with the findings of not eligible for listing in the CRHR. Therefore, no further considerations related to impacts to cultural resources are required for these resources. Finally, no newly identified cultural resources were encountered within the Project site as a result of the pedestrian survey.

The Project would not cause a substantial adverse change in the significance of a known historical resource pursuant to Section 15064.5. However, the potential for intact cultural deposits (archaeological in nature) to exist within native soils to the depths of proposed ground disturbance is unknown. In the event that unanticipated

cultural resources are encountered during Project implementation, an assessment and evaluation of the resource by a qualified archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards, would be conducted potentially resulting in the determination that the resource is historical in accordance with the definition outlined in Section 15064.5. As a result, the Project has a potential to impact and thus cause a substantial adverse change in the significance of a yet unknown historical resource.

Thus, mitigation is required to address impacts related to the inadvertent discovery of yet unknown historical resources, as outlined in **MM-CUL-1** through **MM-CUL 3. MM-CUL-1** requires that all project construction personnel participate in a Workers Environmental Awareness Program training for the proper identification and treatment of inadvertent discoveries. **MM-CUL-2** requires the retention of an on-call qualified archaeologist to respond to and address any inadvertent discoveries and conduct spot monitoring. **MM-CUL-3** requires construction work occurring within 100 feet of a cultural resource discovery be immediately halted until the qualified archaeologist, meeting the Secretary of Interior's Professional Qualification Standards for Archaeology, can assess and evaluate the discovery pursuant to CEQA. Additionally, **MM-CUL-3** requires the inadvertent discovery clause be included on all construction plans. With implementation of **MM-CUL-1** through **MM-CUL 3,** potentially significant impacts to yet unknown historical resources would be reduced to less than significant with mitigation incorporated.

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

Less than Significant Impact with Mitigation Incorporated. A CHRIS database records search, Native American Heritage Commission (NAHC) Sacred Lands File (SLF) search and informal Tribal outreach, background research, including a review of a geotechnical report, and archaeological pedestrian survey were conducted for the Project site. The NAHC's SLF search result was positive; however, as previously discussed, the SLF record is maintained at a public land survey system section level, which indicates a recorded sacred site could be anywhere within a 1-square-mile (640-acre) area and therefore, does not necessarily equate to the existence of resources within the specific area occupied by the Project site. As a result of the informal outreach letters, PaleoWest, Inc. received two responses from the following tribes: the Serrano Nation of Mission Indians and the Kern Valley Indian Community. These responses included a request to be informed of any discovery of cultural materials and a recommendation for archaeological and Tribal monitoring during ground disturbing activities. This informal Tribal outreach was conducted independent of the formal Tribal consultation pursuant to AB 52 and SB 18, which is addressed below in Thresholds D and E.

The CHRIS database search identified five historic period resources (P-36-012649/CA-SBR-012348H, P-36-012652/CA-SBR-012351H, P-36-012655/CA-SBR-012354H, P-36-012651/CA-SBR-012350H and P-36-012657/CA-SBR-012356H) within the Project site. As stated in Threshold A above, all five resources were previously recommended ineligible for inclusion in the CRHR and the survey conducted in support of the present Project. Therefore, no further considerations related to impacts to cultural resources are required for the previously identified resources. No prehistoric or resources of Native American origin were identified within the Project site or 0.5-mile records search radius. Additionally, no newly identified cultural resources were encountered within the Project site as a result of the pedestrian survey.

Finally, results of the geotechnical report indicate that native older alluvial soils extend within the Project site from surface elevation to maximum depths explored with the exception of one investigated location (LB-9), which encountered fill soils overlying native soils within the northwestern quadrant of site. In locations not exposed to recent alluvial deposits, cultural deposits typically have the potential to exist within A soil horizon (native topsoil) and B soil horizon (native subsoil) typically extending to an approximate depth of 6 feet bgs. However, in areas

where environmental conditions include alluvial activity, cultural material may be found considerably deeper. As previously mentioned under Threshold A above, there are no waterways shown as present within the Project site in historical aerials. The nearest waterways include Bell Mountain Wash and the Mojave River, which are located outside and at least 1.5 miles of the Project site.

In consideration of these factors, the potential for intact archaeological deposits to exist within native soils to the depths of assumed ground disturbance is unknown though no evidence of archaeological resources, meeting the criteria significant pursuant to CEQA Guidelines Section 15064.5, were identified as a result of the study conducted by PaleoWest or the analysis conducted for this EIR. If yet unknown archaeological resources were encountered inadvertently as a result of Project implementation and those resources were determined to meet the criteria of a unique archaeological resource or historical resource, there is potential for the Project to cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5.

Thus, mitigation is required to address impacts related to the inadvertent discovery of archaeological resources, as outlined in **MM-CUL-1** through **MM-CUL 3. MM-CUL-1** requires that all Project construction personnel participate in a Workers Environmental Awareness Program training for the proper identification and treatment of inadvertent discoveries. **MM-CUL-2** requires the retention of an on-call qualified archaeologist to respond to and address any inadvertent discoveries and conduct spot monitoring. **MM-CUL-3** requires construction work occurring within 100 feet of a cultural resource discovery be immediately halted until the qualified archaeologist, meeting the Secretary of Interior's Professional Qualification Standards for Archaeology, can assess and evaluate the discovery pursuant to CEQA. Additionally, **MM-CUL-3** requires the inadvertent discovery clause be included on all construction plans. With implementation of **MM-CUL-1** through **MM-CUL-3,** potentially significant impacts to unknown archaeological resources would be reduced to less than significant with mitigation incorporated.

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

Less-than-Significant Impact. No prehistoric or historic period burials, within or outside of formal cemeteries, were identified within the Project site as a result of the CHRIS records search or pedestrian survey. Although the NAHC's SLF search result was positive, it is important to note that the results of the SLF provided by the NAHC relate to the general regional area within and surrounding the Project site and don't necessarily equate to the existence of resources or human remains within the specific Project site. In the event that human remains are inadvertently encountered during ground disturbing activities, they would be treated consistent with state and local regulations including California Health and Safety Code Section 7050.5, California Public Resources Code Section 5097.98, and the California Code of Regulations Section 15064.5(e). In accordance with these regulations, if human remains are found, the County Coroner must be immediately notified of the discovery. No further excavation or disturbance of the Project site or off-site improvement areas or any nearby (no less than 100 feet) area reasonably suspected to overlie adjacent remains can occur until the County Coroner has determined if the remains are potentially human in origin. If the County Coroner determines that the remains are, or are believed to be, Native American, he or she is required to notify the NAHC that shall notify those persons believed to be the most likely descendant. The most likely descendant shall determine, in consultation with the property owner, the disposition of the human remains. Compliance with these regulations would ensure that impacts to human remains resulting from the Project would be less than significant.

Threshold D: 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 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)?

AND

Threshold E: 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 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.

Less than Significant Impact with Mitigation Incorporated**.** The Project is subject to compliance with AB 52 (PRC Section 21074), which requires consideration of impacts to "tribal cultural resources" as a part of the CEQA process, and requires the Town of Apple Valley, as the CEQA lead agency, to notify any groups who have requested notification of proposed projects that are subject to AB 52 compliance and are under the jurisdiction of the agency. Additionally, the Project is subject to compliance with SB 18 (Government Code Section 65352.3), which requires local governments to invite California Native American tribal representatives, as provided by the NAHC, to participate in consultation about proposed General Plan and Specific Plan adoptions or amendments. The Town is considering General Plan Amendment to modify the Town's Circulation Element to realign Apple Valley Road and as such, initiated SB 18 consultation.

No previously recorded archaeological resources of Native American origin or TCRs listed in the CRHR or a local register were identified within the Project site through the SCCIC records. Additionally, although the NAHC's SLF database for the Project site was positive for the presence of reported Native American/tribal cultural resources (TCR), a recorded TCR could be anywhere within a 1-square-mile (640-acre) area and therefore, does not necessarily equate to the existence of a TCR within the specific area occupied by the Project site. Moreover, Tribal entities and Native American representatives do no not always report sacred lands or TCRs to the NAHC; as such, the NAHC's SLF is not necessarily a comprehensive list of known TCRs and searches of the SLF must be considered in concert with other research and not used as a sole source of information regarding the presence of TCRs.

The Town sent notification letters pursuant to AB 52 and SB 18 on September 27, 2023 and one tribal entity, the Yuhaaviatam of San Manuel Nation Cultural Resources Department (YSMN; formerly the San Manuel Band of Mission Indians), responded providing mitigation measures they recommend be included. However, the Tribe stated they have no concerns related to impacts to a specific TCR as a result of Project implementation. At this time, no TCRs have been identified by California Native American tribes as part of the Town's AB 52 and SB 18 notification and consultation processes that would warrant discretionary designation of a resource as a TCR. Therefore, the Project would not adversely affect TCRs that are listed or eligible for listing in the state or local register and the Town determined that no substantial evidence has been presented that would demonstrate a significant TCR (pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1) exists within the Project site. Notwithstanding, **MM-CUL-3**, and **MM-TCR-1** through **MM- TCR-3** are required to help ensure the proper treatment of TCRs in the event of an inadvertent discovery of a TCR. With incorporation of **MM-CUL-3**, and **MM-TCR-1** through **MM- TCR-3**, potential impacts associated with TCRs would be less than significant with mitigation incorporated.

Threshold F: Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than Significant Impact with Mitigation Incorporated. As detail in the paleontological resources assessment by PaleoWest (Appendix E), and herein, no paleontological resources were identified within the Project site as a result of the institutional records search or desktop geological and paleontological review, and the Project site is not anticipated to be underlain by a unique geologic feature. Areas of the Project site underlain by artificial fill or disturbed areas have no paleontological resource sensitivity or potential; Holocene alluvial fan deposits have low paleontological sensitivity on the surface, increasing to high with depth, as older Pleistocene alluvium may be encountered at an undetermined depth below the ground surface; old alluvial fan deposits have high paleontological resource sensitivity of potential; and the plutonic igneous rocks (granodiorite) have no paleontological resource sensitivity or potential. If intact paleontological resources are located on site, ground-disturbing activities associated with construction of the proposed Project, such as grading during site preparation and trenching for utilities, have the potential to destroy a unique paleontological resource or site. As such, the Project site is considered to be potentially sensitive for paleontological resources, and without mitigation, the potential damage to paleontological resources during construction associated with the Project is considered a potentially significant impact. Given the proximity of past fossil discoveries in the surrounding area within Pleistocene alluvial deposits, the Project site is highly sensitive for supporting paleontological resources below the depth of fill and Holocene alluvial deposits. However, upon implementation of **MM-CUL-4**, impacts would be reduced to below a level of significance. Impacts of the proposed Project are considered less than significant with mitigation incorporated during construction.

Threshold G: Would the Project result in cumulatively considerable impacts related to cultural, tribal cultural, or paleontological resources?

Cultural and Tribal Cultural Resources

Less than Significant Impact with Mitigation Incorporated. The geographic scope of the cumulative cultural resources analysis is the region surrounding the Project site. Ongoing development and growth in the broader Project area may result in a cumulatively significant impact to cultural resources due to the continuing disturbance of undeveloped areas, which could potentially contain significant, buried archaeological or tribal cultural resources. However, as discussed above, the individual, Project-level impacts associated with cultural and tribal cultural resources were found to be less than significant with incorporation of mitigation measures (**MM-CUL-1** through **MM-CUL-3**). The Project would be required by law to comply with all applicable federal, state, and local requirements related to historical, archaeological, and tribal cultural resources. Other related cumulative projects would similarly be required to comply with all such requirements and regulations, to be consistent with the provisions set forth by CEQA and the CEQA Guidelines, and to implement all feasible mitigation measures should a significant project-related and/or cumulative impact be identified. As such, cumulative impacts would be less than significant with mitigation incorporated.

Paleontological Resources

Less than Significant Impact. Potential cumulative impacts to paleontological resources would result from projects that combine to create an environment where fossils, exposed on the surface, are vulnerable to destruction by earthmoving equipment, looting by the public, and natural causes such as weathering and erosion. The majority of impacts to paleontological resources are site-specific and are therefore generally mitigated on a project-by-project basis. Cumulative projects would be required to assess impacts to paleontological resources. Additionally, as

needed, projects would incorporate individual mitigation for site-specific geological units present on each individual project site. Furthermore, the Project does not propose construction (including grading/excavation) or design features that could directly or indirectly contribute to an increase in a cumulative impact to paleontological resources, as the mitigation measure provided in this analysis ensures any significant paleontological resources uncovered during Project excavations would be properly analyzed and salvaged by the on-site paleontological monitor. Therefore, the Project, in combination with the past, present, and reasonably foreseeable future projects in the Project vicinity, would result in less-than-significant cumulative impacts to paleontological resources, and no further mitigation measures are required. Moreover, impacts to paleontological resources would be avoided and/or mitigated with implementation of a paleontological mitigation program during excavations into paleontologically sensitive geological units. Therefore, the Project's contribution to cumulative impacts would not be cumulatively considerable. As such, cumulative impacts on paleontological resources would be less than significant with mitigation incorporated.

4.4.5 Mitigation Measures and Level of Significance After Mitigation

Threshold A: Would the Project cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5?

The Project would have a potentially significant impact with regard to historical resources. With implementation of **MM-CUL-1** through **MM-CUL-3**, impacts associated with potential historical resources would be **less than significant with mitigation incorporated**.

MM-CUL-1 Workers Environmental Awareness Program (WEAP) Training. All construction personnel and monitors who are not trained archaeologists shall be briefed regarding unanticipated discoveries prior to the start of construction activities. A basic presentation shall be prepared and presented by a qualified archaeologist to inform all personnel working on the Project about the archaeological sensitivity of the area. The purpose of the WEAP training is to provide specific details on the kinds of archaeological materials that may be identified during construction of the Project and explain the importance of and legal basis for the protection of significant archaeological resources. Each worker shall also learn the proper procedures to follow in the event that cultural resources or human remains are uncovered during ground-disturbing activities. These procedures include work curtailment or redirection, and the immediate contact of the on-call archaeologist and if appropriate, Tribal representative. Necessity of training attendance shall be stated on all construction plans.

MM-CUL-2 On-Call Archaeological Construction Monitoring. In consideration of the general sensitivity of the Project site for cultural resources, a qualified archaeologist shall be retained to conduct spot monitoring as well as on call response in the case of an inadvertent discovery of archaeological resources. A qualified archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards, shall oversee and adjust monitoring efforts as needed (increase, decrease, or discontinue monitoring frequency) based on the observed potential for construction activities to encounter cultural deposits. The archaeologist shall be responsible for maintaining monitoring logs. Following the completion of construction, the qualified archaeologist shall provide an archaeological monitoring report to the lead agency and the SCCIC with the results of the cultural monitoring program.

MM-CUL-3 Inadvertent Discovery of Archaeological Resources. In the event that archaeological resources (sites, features, or artifacts) are exposed during construction activities for the Project, all construction work occurring within 60 feet of the find shall immediately stop until a qualified archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards, can evaluate the significance of the find and determine whether or not additional study is warranted. Work on the other portions of the Project outside of the buffered area may continue during this assessment period. Depending upon the significance of the find under the California Environmental Quality Act (14 CCR 15064.5(f); California PRC Section 21082), the archaeologist may simply record the find and allow work to continue. If the discovery proves significant under CEQA, additional work, such as preparation of an archaeological treatment plan, testing, or data recovery, may be warranted. If the discovery is Native American in nature, consultation with and/or monitoring by a Tribal representative may be necessary.

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

The Project has the potential to result in significant impacts to yet unidentified/unknown archaeological resources causing a potentially substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5. With incorporation of **MM-CUL-1** through **MM-CUL-3**, impacts associated with archaeological resources would be **less than significant with mitigation incorporated**.

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

The Project has the potential to result in significant impacts associated with the disturbance of yet unidentified/unknown human remains, including those interred outside of formal cemeteries. With compliance with Section 7050.5 of the California Health and Safety Code and Section 5097.98 of the California Public Resources Code, impacts associated with human remains would be **less than significant**.

Threshold D: 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 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)?

AND

Threshold E: 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 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.

The Project has the potential to result in significant impacts associated with a substantial adverse change in the significance of a currently unknown/unidentified TCR if one or more are inadvertently encountered as a result of

ground-disturbing activities. With the incorporation of previously outlined **MM-CUL-3**, and **MM-TCR-1** through **MM-TCR-3**, impacts associated with TCRs would be **less than significant with mitigation incorporated.**

MM-TCR-1 Inadvertent Discovery of Cultural Resources. In the event that cultural resources are discovered during Project activities, all work shall follow protocols outlined under MM-CUL-3. Additionally, the consulting Tribe(s) shall be contacted regarding any pre-contact and/or historic-era resources of a Native American origin and be provided information after the qualified archaeologist, as defined within MM-CUL-2, makes their initial assessment of the nature of the discovery. Should the discovery be deemed significant, as defined by CEQA (as amended, 2015), and avoidance cannot be ensured, a cultural resources monitoring and treatment plan shall be created by the qualified archaeologist, in coordination with the consulting Tribe(s), and all subsequent discoveries shall be subject to this plan. This plan shall be approved by the Town. This plan shall allow for a monitor to be present representing the consulting Tribe(s) for the remainder of the Project, should the consulting Tribe(s) elect to place a monitor on site.

MM-TCR-2 Discovery of Human Remains. If human remains or funerary objects are encountered during any activities associated with the Project, work in the immediate vicinity (within a 100-foot buffer of the find) shall cease, and the discoveries shall be treated in accordance with state and local regulations, including California Health and Safety Code Section 7050.5, California Public Resources Code Section 5097.98, and the California Code of Regulations Section 15064.5(e).

MM-TCR-3 Dissemination of Cultural Records. Any and all archaeological/cultural documents created as a part of the Project shall be supplied to the Applicant and Lead Agency for dissemination to the consulting Tribe(s). However, access to confidential records from the California Historical Research Information System (CHRIS) (i.e., (isolate records, site records, survey reports, testing reports, etc.) are restricted from disclosure under federal and state laws; thus, researchers must meet access requirements to obtain this data. Access to confidential CHRIS data shall follow the CHRIS THPO Tribal Access Policy (OHP 2019) or have personnel on staff that meet the CHRIS authorized user's requirements (OHP 2016; OHP 2023). Data security/confidentiality of all CHRIS data provided/acquired shall follow the requirements as outlined in the THPO Tribal Access Policy (OHP 2019). Notwithstanding, non-confidential CHRIS data can be provided for planning purposes and includes a checklist (Summary Records Search) or narrative letter (Extended Records Search) stating whether there are known resources in the study area and offering a recommendation as to sensitivity for recorded and unrecorded cultural resources (OHP 2023). Access to CHRIS information is subject to review and approval of the appropriate Information Center in consultation with the State Historic Preservation Officer[2] (SHPO) (OHP 2016).

The Lead Agency and/or Applicant shall, in good faith, consult with the consulting Tribe(s) throughout the life of the Project.

[2] Pursuant to federal and state law, the California State Historical Resources Commission (SHRC) directs the State Historic Preservation Officer (SHPO) to maintain an inventory of historical resources in California. The SHPO meets this responsibility via the California Historical Resources Information System (CHRIS), which is administered by the Office of Historic Preservation (OHP) under SHPO authority (OHP 2016).

Threshold F: Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

The Project has the potential to result in significant impacts to yet unidentified/unknown paleontological resources causing a potentially substantial adverse change in the significance of a paleontological resource pursuant to CEQA Guidelines Section 15064.5. With incorporation of **MM-CUL-4**, impacts associated with paleontological resources would be **less than significant with mitigation incorporated**.

MM-CUL-4 Paleontological Resources Impact Mitigation Program and Paleontological Monitoring. Prior to commencement of any grading activity on site, the Project Proponent or Applicant shall retain a qualified paleontologist per the Society of Vertebrate Paleontology (SVP) 2010 guidelines to prepare a Paleontological Resources Impact Mitigation Program (PRIMP) for the Project. The PRIMP shall be approved by the Town prior to commencement of any grading activity. The PRIMP shall be consistent with the SVP 2010 guidelines and outline requirements for preconstruction meeting attendance and worker environmental awareness training; where paleontological monitoring is required within the Project site based on construction plans and/or geotechnical reports; and procedures for adequate paleontological monitoring and discoveries treatment, including paleontological methods (including sediment sampling for microinvertebrate and microvertebrate fossils), reporting, and collections management. The PRIMP shall also include a statement that any fossil lab or curation costs (if necessary due to fossil recovery) are the responsibility of the Project Proponent or Applicant.

In addition, a qualified paleontological monitor shall be on site during initial rough grading and other significant ground-disturbing activities (including augering) in areas underlain by geological units with high paleontological resource sensitivity or potential (e.g., Pleistocene alluvium and below a depth of 5 feet below the ground surface in areas underlain by Holocene alluvial fan deposits). No paleontological monitoring is necessary during ground disturbance within artificial fill/disturbed sediments or in areas underlain by plutonic igneous rocks (e.g., granodiorite). In the event that paleontological resources (e.g., fossils) are unearthed during grading, the paleontological monitor will temporarily halt and/or divert grading activity to allow recovery of paleontological resources. The area of discovery will be roped off with a 50-foot radius buffer. Once documentation and collection of the find is completed, the monitor will allow grading to recommence in the area of the find.

Upon completion of ground-disturbing activity (and curation of fossils, if necessary), the Project paleontologist shall prepare a final mitigation and monitoring report outlining the results of the mitigation and monitoring program. The report shall include a discussion of the location, duration, and methods of the monitoring, stratigraphic sections, and any recovered fossils, as well as the scientific significance of those fossils and where fossils were curated.

Threshold G: Would the Project result in cumulatively considerable impacts related to cultural, tribal cultural, or paleontological resources?

Cultural and Tribal Cultural Resources

The Project would result in potentially significant cumulative impacts to cultural or tribal cultural resources. With implementation of **MM-CUL-1** through **MM-CUL-3** and **MM-TCR-1** through **MM-TCR-3**, cumulative Project impacts would be **less than significant with mitigation incorporated**.

Paleontological Resources

The Project would result in potentially significant cumulative impacts to paleontological resources. With implementation of **MM-CUL-4**, cumulative Project impacts would be **less than significant with mitigation incorporated**.

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4.5 Energy

This section describes the existing energy conditions of the Project site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed Project.

4.5.1 Existing Conditions

Electricity

According to the U.S. Energy Information Administration (EIA), California used approximately 247,249,865 gigawatt-hours of electricity in 2021 (EIA 2022). Electricity usage in California for different land uses varies substantially by the types of uses in a building, type of construction materials used in a building, and the efficiency of all electricity-consuming devices within a building. Due to the state's energy efficiency building standards and efficiency and conservation programs, California's electricity use per capita in the residential and commercial sector is lower than any other state except Hawaii (EIA 2023a).

Southern California Edison (SCE) provides electricity to the Project. SCE, a subsidiary of Edison International, serves approximately 180 cities in 11 counties across Central and Southern California. According to the California Public Utilities Commission (CPUC), approximately 105 billion kilowatt-hours (kWh) of electricity were used in SCE's service area in 2021. Demand forecasts anticipate that approximately 110 billion kWh of electricity will be used in SCE's service area in 2024 (CEC 2023a).

SCE receives electric power from a variety of sources. According to the 2021 SCE Power Content Label, eligible renewable energy accounts for 33.6% of SCE's overall energy resources, with biomass and biowaste at 2.3%, geothermal resources at 4.8%, wind power at 11.4%, eligible hydroelectric sources at 1%, and solar energy at 14.2% (CEC 2022). Within San Bernadino County, annual electricity use in 2022 was approximately 16.6 billion kWh per year (CEC 2023b).

Natural Gas

According to the EIA, California used approximately 2,092,612 million cubic feet of natural gas in 2021 (EIA 2023b). The majority of California's natural gas customers are residential and small commercial customers (core customers). These customers account for approximately 35% of the natural gas delivered by California utilities (CPUC 2021). Large consumers, such as electric generators and industrial customers (noncore customers), account for approximately 65% of the natural gas delivered by California utilities (CPUC 2021). CPUC regulates California natural gas rates and natural gas services, including in-state transportation over transmission and distribution pipeline systems, storage, procurement, metering, and billing. Most of the natural gas used in California comes from out-of-state natural gas basins. Biogas (e.g., from wastewater treatment facilities or dairy farms) is just beginning to be delivered into the gas utility pipeline systems; however, the state has adopted regulations requiring its development to reduce statewide emissions of methane by 40% below 2013 levels by 2030 (CPUC 2022).

Natural gas service for the City is provided by Southwest Gas Holdings, Inc. Southwest Gas provides services to over 2 million customers in Arizona, California and Nevada, 205,000 of which reside in Southern California (Southwest Gas Holdings 2023). The total capacity of natural gas available to Southwest Gas in 2022 was estimated to be 27 million cubic feet (SoCal Gas 2023).

Petroleum

According to the EIA, California used approximately 605 million barrels of petroleum in 2021, with the majority (511 million barrels) used for the transportation sector (EIA 2023b). There are 42 U.S. gallons in a barrel, so this equates to a total daily use of approximately 69.6 million gallons of petroleum in California, with the transportation sector consuming 58.8 million gallons per day. Petroleum usage in California includes petroleum products such as motor gasoline, distillate fuel, liquefied petroleum gases, and jet fuel. At the federal and state levels, various policies, rules, and regulations have been enacted to improve vehicle fuel efficiency, promote the development and use of alternative fuels, reduce transportation-source air pollutants and greenhouse gas (GHG) emissions, and reduce vehicle miles traveled (VMT). Section 4.5.2, Relevant Regulations, Plans, Policies, and Ordinances, discusses in more detail both federal and state regulations that would help increase fuel efficiency of motor vehicles and reduce GHG emissions. Market forces have driven the price of petroleum products steadily upward over time, and technological advances have made use of other energy resources or alternative transportation modes increasingly feasible.

4.5.2 Relevant Regulations, Plans, Policies, and Ordinances

Although the focus of many of the federal and state regulations is on the reduction of air pollutants and GHG emissions, one co-benefit of implementation of these standards is a reduced demand for energy resources. As such, this section only presents regulations that pertain to energy that are not included in either Section 4.2, Air Quality, or Section 4.6, Greenhouse Gas Emissions, of the EIR, or that are specifically referenced in the energy impact determinations herein.

Federal

Federal Energy Policy and Conservation Act and CAFE Standards

In 1975, Congress enacted the federal Energy Policy and Conservation Act, which established the first fuel economy standards, known as the Corporate Average Fuel Economy (CAFE) standards, for on-road motor vehicles in the United States. Pursuant to the act, the National Highway Traffic Safety Administration (NHTSA) is responsible for establishing additional vehicle standards. In 2012, new CAFE standards for passenger cars and light trucks were approved for model years 2017 through 2021 (77 FR 62624–63200). Fuel economy is determined based on each manufacturer's average fuel economy for the fleet of vehicles available for sale in the United States.

Energy Policy Act of 1992 and 2005

The Energy Policy Act of 1992 was passed to reduce the country's dependence on foreign petroleum and improve air quality. The act includes several parts intended to build an inventory of alternative fuel vehicles (AFVs) in large, centrally fueled fleets in metropolitan areas. The act requires certain federal, state, and local government and private fleets to purchase a percentage of light-duty AFVs capable of running on alternative fuels each year. In addition, financial incentives are also included in the act. Federal tax deductions are allowed for businesses and individuals to cover the incremental cost of AFVs. The Energy Policy Act also requires states to consider a variety of incentive programs to help promote AFVs. The Energy Policy Act provides renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing, tax incentives, grants, and loan guarantees for clean renewable energy and rural community electrification; and establishes a federal purchase requirement for renewable energy.

In January 2005, the new Energy Policy Act was signed into law. It addresses energy production in the United States, including energy efficiency, renewable energy, oil and gas, coal, Tribal energy, nuclear matters and security, vehicles and motor fuels, including ethanol, hydrogen, electricity, energy tax incentives, hydropower and geothermal energy, and climate change technology. The Energy Policy Act provides loan guarantees for entities that develop or use innovative technologies that avoid the by-production of greenhouse gases. Another provision of the Energy Policy Act is the Renewable Fuel Standard (RFS), which increases the amount of biofuel that must be mixed with gasoline sold in the United States.

Energy Independence and Security Act of 2007

On December 19, 2007, the Energy Independence and Security Act of 2007 (EISA) was signed into law. In addition to setting increased CAFE standards for motor vehicles, the EISA facilitates the reduction of national GHG emissions by requiring the following:

- Increasing the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard (RFS) that requires fuel producers to use at least 36 billion gallons of biofuel in 2022.
- Prescribing or revising standards affecting regional efficiency for heating and cooling products, procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.
- Requiring approximately 25% greater efficiency for light bulbs by phasing out incandescent light bulbs between 2012 and 2014; requiring approximately 200% greater efficiency for light bulbs, or similar energy savings, by 2020.
- While superseded by the U.S. Environmental Protection Agency (EPA) and NHTSA actions described previously, establishing miles per gallon targets for cars and light trucks and directing the NHTSA to establish a fuel economy program for medium-and heavy-duty trucks and create a separate fuel economy standard for trucks.

This federal legislation requires ever-increasing levels of renewable fuels (the RFS) to replace petroleum (EPA 2023). EPA is responsible for developing and implementing regulations to ensure that transportation fuel sold in the United States contains at least a minimum volume of renewable fuel.

The RFS program was created under the Energy Policy Act and established the first renewable fuel volume mandate in the United States. As required under the Energy Policy Act, the original RFS program required 7.5 billion gallons of renewable fuel to be blended into gasoline by 2012. Under the EISA, the RFS program was expanded in several ways that laid the foundation for achieving significant reductions in GHG emissions from the use of renewable fuels, reducing imported petroleum, and encouraging the development and expansion of the renewable fuels sector in the United States. The updated program is referred to as “RFS2” and includes the following:

- The EISA expanded the RFS program to include diesel, in addition to gasoline.
- The EISA increased the volume of renewable fuel required to be blended into transportation fuel from 9 billion gallons in 2008 to 36 billion gallons by 2022.
- The EISA established new categories of renewable fuel and set separate volume requirements for each one.
- The EISA required EPA to apply lifecycle GHG performance threshold standards to ensure that each category of renewable fuel emits fewer GHGs than the petroleum fuel it replaces.

Additional provisions of the EISA address energy savings in government and public institutions, research for alternative energy, additional research in carbon capture, international energy programs, and the creation of green (environmentally beneficial) jobs.

Intermodal Surface Transportation Efficiency Act of 1991

The Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 promoted the development of intermodal transportation systems to maximize mobility and address national and local interests in air quality and energy. ISTEA contained factors for metropolitan planning organizations to address in developing transportation plans and programs, including some energy-related factors. To meet the new ISTEA requirements, metropolitan planning organizations adopted policies defining the social, economic, energy, and environmental values guiding transportation decisions.

Transportation Equity Act for the 21st Century

The Transportation Equity Act for the 21st Century was signed into law in 1998 and builds on the initiatives established in the ISTEA legislation (previously discussed). The Transportation Equity Act authorizes highway, highway safety, transit, and other efficient surface transportation programs. The act 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 transportation decisions. The Transportation Equity Act 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.

State

Warren-Alquist Act

The California legislature passed the Warren-Alquist Act in 1974. The Warren-Alquist Act created the California Energy Commission (CEC). The legislation also incorporated the following three key provisions designed to address the demand side of the energy equation:

- The act directed the CEC to formulate and adopt the nation's first energy conservation standards for buildings constructed and appliances sold in California.
- The act removed the responsibility of electricity demand forecasting from the utilities, which had a financial interest in high-demand projections, and transferred it to a more impartial CEC.
- The CEC was directed to embark on an ambitious research and development program, with a particular focus on fostering what were characterized as non-conventional energy sources.

State of California Energy Action Plan

CEC and CPUC approved the first State of California Energy Action Plan in 2003. The Energy Action Plan established shared goals and specific actions to support that adequate, reliable, and reasonably priced electrical power and natural gas supplies are provided, and identified policies, strategies, and actions that are cost effective and environmentally sound for California's consumers and taxpayers. In 2005, CEC and CPUC adopted a second Energy Action Plan to reflect various policy changes and actions of the preceding 2 years.

At the beginning of 2008, CEC and CPUC determined that it was not necessary or productive to prepare a new Energy Action Plan. This determination was based, in part, on a finding that the state's energy policies have been significantly influenced by the passage of Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006 (discussed in "Assembly Bill 32 and Senate Bill 32"). Rather than produce a new Energy Action Plan, CEC and CPUC prepared an update that examines the state's ongoing actions in the context of global climate change.

Assembly Bill 1007 (2005)

AB 1007 (2005) required the CEC to prepare a statewide plan to increase the use of alternative fuels in California (State Alternative Fuels Plan). The CEC prepared the plan in partnership with the California Air Resources Board (CARB) and in consultation with other state agencies, plus federal and local agencies. The State Alternative Fuels Plan assessed various alternative fuels and developed fuel portfolios to meet California's goals to reduce petroleum consumption, increase alternative fuels use, reduce GHG emissions, and increase in-state production of biofuels without causing a significant degradation of public health and environmental quality.

California Building Standards

The California Building Standards Code was established in 1978 and serves to enhance and regulate California's building standards. While not initially promulgated to reduce GHG emissions, Part 6 of Title 24 specifically established Building Energy Efficiency Standards that are designed to ensure that new and existing buildings in California achieve energy efficiency and preserve outdoor and indoor environmental quality. These energy efficiency standards are reviewed every 3 years by the Building Standards Commission and the California Energy Commission (CEC) and revised if necessary (California Public Resources Code Section 25402[b][1]). The regulations receive input from members of industry, as well as the public, to "reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy" (California Public Resources Code Section 25402). These regulations are carefully scrutinized and analyzed for technological and economic feasibility (California Public Resources Code Section 25402[d]) and cost effectiveness (California Public Resources Code Section 25402[b][2–3]). As a result, these standards save energy, increase electricity supply reliability, increase indoor comfort, avoid the need to construct new power plants, and help preserve the environment. The current Title 24 standards are the 2022 Title 24 building energy efficiency standards, which became effective January 1, 2023.

In addition to CEC's efforts, in 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11 of Title 24), which is commonly referred to as California's Green Building Standards (CALGreen), establishes minimum mandatory standards and voluntary standards pertaining to the planning and design of sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and interior air quality.

Local

Town of Apple Valley General Plan

The Town of Apple Valley adopted their General Plan in 2009. The Plan consists of 19 elements, including but not limited to Land Use, Housing, Water Resources, Air Quality, and Energy and Mineral Resources (Town of Apple Valley 2009). The Energy and Mineral Resources Element of the Town of Apple Valley contains the following goals and policies pertaining to energy for the Project.

Energy and Mineral Resources Element

Goal: Assure the long-term availability and affordability of energy and mineral resources through conservative consumption, efficient use, and environmentally sensitive management practices.

Policy 1.A: The community and all economic sectors shall be urged to conserve energy, with particular focus on the inclusion of energy saving measures in transport systems, and in the planning and construction of urban uses.

Policy 1.B: Promote building design and construction that integrates alternative energy systems, including but not limited to solar, thermal, photovoltaics and other clean energy systems.

Policy 1.C: Proactively support state and federal legislation and regulations and long-term strategies that assure affordable and reliable production and delivery of electrical power to the community. The Town will encourage and facilitate the exploitation of local renewable resources by supporting public and private initiatives to develop and operate alternative systems of electricity generation, using wind, solar and other renewable energies.

Policy 1.D: The Town will encourage and facilitate the exploitation of local renewable resources by supporting public and private initiatives to develop and operate alternative systems of electricity generation, using wind, solar and other renewable energies.

Town of Apple Valley Climate Action Plan

The Town of Apple Valley also completed a Climate Action Plan (CAP), which was originally based off of a 2005 inventory and baseline and was most recently updated in 2019 (Town of Apple Valley 2019). The CAP includes a community inventory of energy consumption and the associated emissions from sources including natural gas, electricity, and petroleum. CAP policies pertaining to the Project include:

Energy Efficiency Measures

ND-12: Building and site plan designs shall ensure that the project energy efficiencies meet applicable California Title 24 Energy Efficiency Standards. Verification of increased energy efficiencies shall be documented in Title 24 Compliance Reports provided by the applicant, and reviewed and approved by the Town prior to the issuance of the first building permit.

ND-12: To reduce the project's energy use from the grid:

- Install solar panels/photovoltaic systems sufficient to provide electric power and heat water within the project, and/or
- Install other clean energy system sufficient to provide electric power and heat water within the project, and/or

ND-12: Install solar or photovoltaic systems on new roofs whether on residential, commercial or industrial buildings.

4.5.3 Thresholds of Significance

The significance criteria used to evaluate the Project impacts to energy are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to energy would occur if the Project would:

A. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation.
B. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.
C. Result in cumulatively considerable energy impacts.

Approach and Methodology

Construction

Construction of the Project would result in energy consumption primarily associated with use of off-road construction equipment, on-road hauling and vendor (material delivery) trucks, and worker vehicles. The analysis of energy emissions used the same methodology and modeling inputs assumptions as the analysis of air quality impacts in Section 4.2 of this EIR. All details for construction criteria air pollutants discussed in the Methodology subsection in Section 4.2.3 are also applicable for the estimation of construction-related energy demand. In addition to those assumptions discussed in Section 4.2, the following methodology was used to estimate construction energy demands.

Electricity

Electricity is not expected to be consumed in large quantities during Project construction, as construction equipment and vehicles are not electric but rather diesel- or gas-powered. Temporary electric power for as-necessary lighting and electronic equipment, such as computers inside temporary construction trailers, would be provided by SCE.

Natural Gas

Natural gas is not anticipated to be required during construction of the Project. Fuels used for construction would primarily consist of diesel and gasoline, which are discussed below under the “petroleum” subsection.

Petroleum

Potential impacts were assessed for off-road equipment and on-road vehicle trips during construction based on the California Emissions Estimator Model (CalEEMod) outputs (see Appendix B-1). Fuel consumption from equipment and vehicles was estimated by converting the total CO_2 emissions to gallons using the conversion factors for CO_2 to gallons of gasoline or diesel. The conversion factor for gasoline is 8.78 kilograms per metric ton (MT) CO_2 per gallon, and the conversion factor for diesel is 10.21 kilograms per MT CO_2 per gallon (The Climate Registry 2023). Heavy-duty construction equipment associated with construction activities, vendor trucks, and haul trucks are assumed to use diesel fuel. Worker vehicles are assumed to be gasoline-powered light-duty vehicles.

Operation

Energy consumption in support of or related to Project operations would include transportation energy demands (energy consumed by on-road vehicles accessing the Project site) and facilities energy demands (energy consumed by building operations and site maintenance activities).

Electricity

The Project's operational phase would require electricity for multiple purposes including, but not limited to, building heating and cooling, lighting, and appliances, including refrigeration, electronics, equipment, and machinery. CalEEMod version 2022.1 was used to analyze electrical usage during operation; the default value for electricity consumption for the proposed warehouse land uses was applied for the Project. MM-AQ-2 requires all equipment and appliances operating on the Project site, including off-road equipment such as forklifts, to be zero-emission or near-zero-emission equipment, which would require electricity.

Natural Gas

Natural gas consumption during operation would be required for various purposes, including, but not limited to, building heating and cooling. Natural gas would be supplied to the Project by SoCalGas. Default natural gas generation rates in CalEEMod for the proposed land use and climate zone were used.

Petroleum

The fuel consumption resulting from the Project's operational phase would be attributable to vehicles traveling to and from the Project site. Energy that would be consumed by Project-generated traffic is a function of total VMT and estimated vehicle fuel economies for the vehicles accessing the Project site. With respect to estimated VMT, and based on the trip frequency and trip length methodologies cited in Section 4.2 and Appendix B-1, the Project would generate an estimated 45,526,728 annual VMT along area roadways for all worker vehicles and 35,930,491 annual VMT for trucks.

Regarding diesel-fueled off-road equipment, the Project would require cargo handling equipment, which was assumed to consist of a total of 308 forklifts (forklifts and pallet jacks) and three yard hostlers operating at 24 hours a day for 365 days of the year; however, MM-AQ-2 outlined in Section 4.2.5 requires zero- or near-zero-emission equipment, which would involve employing electric forklifts and other yard equipment. This would drastically reduce diesel consumption from operational off-road equipment. Details of these calculations and assumptions are provided in Appendix B-1.

4.5.4 Impacts Analysis

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

Less than Significant. The Project consumption of energy resources during construction and operation would be less than significant, as discussed in further detail below.

Electricity

Construction Electricity Usage

Temporary electric power for as-necessary lighting and electronic equipment, such as computers inside temporary construction trailers, would be provided by SCE. The electricity used for such activities would be temporary, would be substantially less than that required for Project operation, and would therefore have a negligible contribution to the Project's overall energy consumption.

Operational Electricity Usage

The operational phase would require electricity for multiple purposes, including building heating and cooling, lighting, electronics, and electric pumps. CalEEMod was used to estimate Project emissions from electricity uses (see Appendix B-1). Default electricity generation rates in CalEEMod were used based on the proposed land use and climate zone. Table 4.5-1 shows the estimated annual operational electricity demand.

Table 4.5-1. Project Annual Operational Electricity Demand Summary

Electricity Demand	kWh/year
Warehouse Buildings	12,029,329
Parking Lot	934,465
Total Project Electricity Demand	**12,963,794**

Source: Appendix B-1.
Notes: kWh = kilowatt hour.
Results presented here represent electricity demand after mitigation measures are enacted, including utilizing electric off-road equipment.

As shown in Table 4.5-1, the Project is anticipated to consume approximately 12,963,794 kWh of electricity per year. The Project proposes conventional industrial uses reflecting contemporary energy efficient/energy conserving designs and operational programs. Uses proposed by the Project are not inherently energy intensive. Finally, the Project would be required to comply with the applicable Title 24 standards applicable at that time, which would further ensure that the Project energy demands would not be inefficient, wasteful, or otherwise unnecessary and impacts would be less than significant.

Natural Gas

Construction Natural Gas Usage

Natural gas is not anticipated to be required during construction of the Project. Fuels used for construction would primarily consist of diesel and gasoline, which are discussed under the subsection "Petroleum," below. Any minor amounts of natural gas that may be consumed as a result of Project construction would be temporary and negligible, and would not have an adverse effect; therefore, impacts would be less than significant.

Operational Natural Gas Usage

Natural gas consumption during operation would be required for various purposes, including, but not limited to, building heating and cooling. Default natural gas generation rates in CalEEMod for the proposed land use and climate zone were used. Table 4.5-2 presents the annual operational natural gas demand.

Table 4.5-2. Project Annual Operational Natural Gas Demand Summary – Unmitigated

Natural Gas Demand	kBTU/year
Warehouse Buildings	45,512,972
Total Project Natural Gas Demand	**45,512,972**

Source: Appendix B-1.
Note: kBTU = kilo-British Thermal Units.

As shown in Table 4.5-2 the Project is estimated to have a total natural gas demand of 45,512,972 kBTU per year. The Project proposes conventional industrial uses reflecting contemporary energy efficient/energy conserving designs and operational programs. Uses proposed by the Project are not inherently energy intensive. Additionally, the Project is subject to statewide mandatory energy requirements as outlined in Title 24, Part 6, of the California Code of Regulations. Prior to Project approval, the applicant would ensure that the Project would meet Title 24 requirements applicable at that time, as required by state regulations through their plan review process. Thus, the natural gas consumption of the Project would not be considered inefficient or wasteful, and impacts would be less than significant.

Petroleum

Construction Petroleum Usage

Petroleum would be consumed throughout construction of the Project. Fuel consumed by construction equipment would be the primary energy resource expended over the course of construction, and VMT associated with the transportation of construction materials and construction worker commutes would also result in petroleum consumption. Heavy-duty construction equipment associated with construction activities and on-road trucks are assumed to use diesel fuel. Construction workers would travel to and from the Project site throughout the duration of construction. It is assumed that construction workers would travel to and from the Project site in gasoline-powered vehicles.

Heavy-duty construction equipment of various types would be used during Project construction. CalEEMod was used to estimate construction equipment usage; results are included in Appendix B of this EIR. The estimated diesel fuel usage from construction equipment, haul trucks, and vendor trucks, as well as estimated gasoline fuel usage from worker vehicles is shown in Table 4.5-3.

Table 4.5-3. Construction Petroleum Demand - Unmitigated

Project	Off-road Equipment (diesel)	Haul Trucks (diesel)	Vendor Trucks (Diesel)	Worker Vehicles (gasoline)
	Gallons			
On-Site				
Site Preparation	11,293	0	415	589
Grading	31,829	0	929	1,503
Building Construction	19,068	0	138,883	172,597
Paving	2,787	0	490	634

Table 4.5-3. Construction Petroleum Demand - Unmitigated

Project	Off-road Equipment (diesel)	Haul Trucks (diesel)	Vendor Trucks (Diesel)	Worker Vehicles (gasoline)
	Gallons			
Architectural Coating	267	0	0	8,544
Project Construction Total	**65,243**	**0**	**140,717**	**183,866**
			Total Petroleum	**389,826**

Source: Appendix B-1.
Note: Sum of petroleum demand for Project phases may differ slightly from Project construction totals due to rounding.

In summary, construction of the Project is conservatively anticipated to consume approximately 389,826 gallons of petroleum in total. Notably, the Project would be subject to CARB's In-Use Off-Road Diesel Vehicle Regulation that applies to certain off-road diesel engines, vehicles, or equipment greater than 25 horsepower. The regulation (1) imposes limits on idling, requires a written idling policy, and requires a disclosure when selling vehicles; (2) requires all vehicles to be reported to CARB (using the Diesel Off-Road Online Reporting System) and labeled; (3) restricts the adding of older vehicles into fleets starting on January 1, 2014; and (4) requires fleets to reduce their emissions by retiring, replacing, or repowering older engines or installing Verified Diesel Emission Control Strategies (i.e., exhaust retrofits). The fleet must either show that its fleet average index was less than or equal to the calculated fleet average target rate, or that the fleet has met the Best Achievable Control Technology requirements. Project construction would represent a "single-event" petroleum demand and would not require on-going or permanent commitment of petroleum resources for this purpose. Overall, the Project would not involve characteristics that require equipment that would be less energy-efficient than at comparable construction sites in the region or state. Therefore, impacts would be less than significant.

Operational Petroleum Usage

During operations, fuel consumption resulting from the Project would involve the use of motor vehicles traveling to and from the Project site and diesel-fueled off-road equipment. Fuel demand estimates for the Project are provided in Table 4.5-4.

Table 4.5-4. Operational Petroleum Demand

Project	Employee Vehicles (gasoline)	Haul Trucks (diesel)	Off-Road Equipment (diesel)
	Gallons		
Operations	1,602,961	4,481,685	2,284,329
		Total Petroleum	**8,368,975**
		Total Petroleum After MM-AQ-2	**6,084,646**

Source: Appendix B-1.

As summarized on Table 4.5-4, the unmitigated Project would result in an estimated annual fuel demand of approximately 8,368,975 gallons of fuel. Estimated petroleum demand after mitigation would be 6,084,646 gallons per year. Fuel would be provided by current and future commercial vendors. The Project does not propose uses or operations that would inherently result in excessive and wasteful activities, nor associated excess and wasteful vehicle energy consumption. Finally, enhanced fuel economies realized pursuant to federal and state

regulatory actions, and related transition of vehicles to alternative energy sources (e.g., electricity, natural gas, biofuels, hydrogen cells) would likely decrease future gasoline fuel demands per VMT. Location of the Project proximate to regional and local roadway systems tends to reduce VMT within the region, acting to reduce regional vehicle energy demands. As supported by the preceding discussions, Project transportation energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary and impacts would be less than significant.

Renewable Energy Potential

As part of the Project's design process, the Project applicant considered how the Project could potentially increase its reliance on renewable energy sources to meet the Project's energy demand. Renewable energy sources that were considered for their potential to be used to power the Project, consistent with the California Energy Commission's (CEC's) definition of eligible renewables, include biomass, geothermal, solar, wind, and small hydroelectric facilities.

Given the Project's location and the nature of the Project, there are considerable site constraints including incompatibility with surrounding land uses for large scale power generation facilities, unknown interconnection feasibility, compatibility with utility provider systems, and no known water or geothermal resources to harness, that would eliminate the potential for biomass, geothermal, wind, and hydroelectric renewable energy to be installed on site.

The Project would comply with all applicable Title 24 code provisions, such as the solar ready building mandatory requirements. Battery storage for emergency power of the total office space shall also be included in the Project design. In summary, the Project includes the on-site renewable energy source (i.e., solar) that was determined to be feasible for the site and does not include the on-site renewable energy sources that were determined to be infeasible.

Summary

Based on the preceding considerations, the Project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation. This impact would be **less than significant**.

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

Less than Significant. The Project would be subject to and would comply with, at a minimum, the California Building Energy Efficiency Standards (24 CCR Part 6). Part 6 of Title 24 establishes energy efficiency standards for non-residential buildings constructed in California in order to reduce energy demand and consumption. As such, the Project would comply with the California code requirements for energy efficiency.

Part 11 of Title 24 sets forth voluntary and mandatory energy measures that are applicable to the Project under CALGreen. CALGreen institutes mandatory minimum environmental performance standards for all ground-up, new construction of commercial, low-rise residential, high-rise residential, state-owned buildings, schools, and hospitals, as well as certain residential and non-residential additions and alterations. On this basis, the Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. This impact would be less than significant.

Threshold C: Would the Project result in a cumulatively considerable energy impact?

Less than Significant. Cumulative Projects that could exacerbate the Project's energy impacts include any Projects that could result in wasteful, inefficient, or unnecessary use of energy. However, the Project would not result in wasteful, inefficient, or unnecessary use of energy during construction or operation. Construction will result in short-term and temporary energy demands. Operation of the Project would not result in a wasteful, inefficient or unnecessary use of energy or conflict with an applicable plan. Therefore, the Project would have a less than significant impact with regards to cumulative energy impacts.

4.5.5 Mitigation Measures and Level of Significance After Mitigation

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

Less than Significant. The Project would have a **less-than-significant impact** with regard to the wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation; however, **MM-AQ-2** would further reduce energy consumption with regard to petroleum demand.

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

Less than Significant. The Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency and impacts would be **less than significant**. No mitigation is required.

Threshold C: Would the Project result in a cumulatively considerable energy impact?

Less than Significant. The Project would have a **less-than-significant** impact with regards to cumulative energy impacts. No mitigation is required.

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4.6 Greenhouse Gas Emissions

This section describes the existing greenhouse gas conditions of the Inland Empire North Logistics Center Apple Valley (Project) site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures (MM) related to implementation of the proposed Project.

In addition to the documents incorporated by reference (see Section 2.7, Documents Incorporated by Reference, of this environmental impact report [EIR]), the following analysis is based, in part, on the following sources:

- Air Quality, Greenhouse Gas Emissions, and Energy Modeling Inputs and Outputs, prepared by Dudek in September 2023 (Appendix B-1).
- Health Risk Assessment, prepared by Dudek in September 2023 (Appendix B-2).
- Transportation Impact Analysis, prepared by David Evans and Associates in September 2023 (Appendix J).

4.6.1 Existing Conditions

Climate Change Overview

Climate change refers to any significant change in measures of climate—such as temperature, precipitation, or wind patterns—lasting for an extended period (decades or longer). The Earth's temperature depends on the balance between energy entering and leaving the planet's system. Many factors, both natural and human, can cause changes in Earth's energy balance, including variations in the sun's energy reaching the Earth, changes in the reflectivity of Earth's atmosphere and surface, and changes in the greenhouse effect, which affects the amount of heat retained by Earth's atmosphere (EPA 2017).

The greenhouse effect is the trapping and buildup of heat in the atmosphere near the Earth's surface (troposphere). The greenhouse effect traps heat in the troposphere through a threefold process, as follows: short-wave radiation emitted by the Sun is absorbed by the Earth, the Earth emits a portion of this energy in the form of long-wave radiation, and GHGs in the upper atmosphere absorb this long-wave radiation and emit it into space and toward the Earth. The greenhouse effect is a natural process that contributes to regulating the Earth's temperature and creates a pleasant, livable environment on the Earth. Human activities that emit additional GHGs to the atmosphere increase the amount of infrared radiation that gets absorbed before escaping into space, thus enhancing the greenhouse effect and causing the Earth's surface temperature to rise.

The scientific record of the Earth's climate shows that the climate system varies naturally over a wide range of time scales and that, in general, climate changes prior to the Industrial Revolution in the 1700s can be explained by natural causes, such as changes in solar energy, volcanic eruptions, and natural changes in GHG concentrations. However, recent climate changes, in particular the warming observed over the past century, cannot be explained by natural causes alone. Rather, it is extremely likely that human activities have been the dominant cause of warming since the mid-twentieth century and are the most significant driver of observed climate change (IPCC 2013; EPA 2017). Human influence on the climate system is evident from the increasing GHG concentrations in the atmosphere, positive radiative forcing, observed warming, and improved understanding of the climate system (IPCC 2013). The atmospheric concentrations of GHGs have increased to levels unprecedented in the last 800,000 years, primarily from fossil fuel emissions and secondarily from emissions associated with land use changes (IPCC 2013). Continued emissions of GHGs will cause further warming and changes in all components of the climate system.

Greenhouse Gases

A GHG is any gas that absorbs infrared radiation in the atmosphere; in other words, GHGs trap heat in the atmosphere. As defined in California Health and Safety Code, Section 38505(g), for purposes of administering many of the State's primary GHG emissions reduction programs, GHGs include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), and nitrogen trifluoride (NF_3). (See also CEQA Guidelines, Section 15364.5.) Some GHGs, such as CO_2, CH_4, and N_2O, occur naturally and are emitted into the atmosphere through natural processes and human activities. Of these gases, CO_2 and CH_4 are emitted in the greatest quantities from human activities. Manufactured GHGs, which have a much greater heat-absorption potential than CO_2, include fluorinated gases, such as HFCs, PFCs, and SF_6, which are associated with certain industrial products and processes. The following paragraphs provide a summary of the most common GHGs and their sources.[1]

Carbon Dioxide. CO_2 is a naturally occurring gas and a by-product of human activities and is the principal anthropogenic GHG that affects the Earth's radiative balance. Natural sources of CO_2 include respiration of bacteria, plants, animals, and fungus; evaporation from oceans; volcanic out-gassing; and decomposition of dead organic matter. Human activities that generate CO_2 are from the combustion of fuels such as coal, oil, natural gas, and wood and changes in land use.

Methane. CH_4 is produced through both natural and human activities. CH_4 is a flammable gas and is the main component of natural gas. Methane is produced through anaerobic (without oxygen) decomposition of waste in landfills, flooded rice fields, animal digestion, decomposition of animal wastes, production and distribution of natural gas and petroleum, coal production, and incomplete fossil fuel combustion.

Nitrous Oxide. N_2O is produced through natural and human activities, mainly through agricultural activities and natural biological processes, although fuel burning and other processes also create N_2O. Sources of N_2O include soil cultivation practices (microbial processes in soil and water), especially the use of commercial and organic fertilizers, manure management, industrial processes (such as in nitric acid production, nylon production, and fossil-fuel-fired power plants), vehicle emissions, and using N_2O as a propellant (e.g., rockets, racecars, and aerosol sprays).

Fluorinated Gases. Fluorinated gases (also referred to as F-gases) are synthetic powerful GHGs emitted from many industrial processes. Fluorinated gases are commonly used as substitutes for stratospheric ozone-depleting substances (e.g., chlorofluorocarbons [CFCs], hydrochlorofluorocarbons [HCFCs], and halons). The most prevalent fluorinated gases include the following:

- **Hydrofluorocarbons*:*** HFCs are compounds containing only hydrogen, fluorine, and carbon atoms. HFCs are synthetic chemicals used as alternatives to ozone-depleting substances in serving many industrial, commercial, and personal needs. HFCs are emitted as by-products of industrial processes and are used in manufacturing.
- **Perfluorocarbons:** PFCs are a group of human-made chemicals composed of carbon and fluorine only. These chemicals were introduced as alternatives, with HFCs, to the ozone depleting substances. The two main sources of PFCs are primary aluminum production and semiconductor manufacturing. Since PFCs

[1] The descriptions of GHGs are summarized from the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report (2007), the California Air Resources Board's (CARB's) Glossary of Terms Used in GHG Inventories (CARB 2020), and EPA's Glossary of Climate Change Terms (EPA 2017).

have stable molecular structures and do not break down through the chemical processes in the lower atmosphere, these chemicals have long lifetimes, ranging between 10,000 and 50,000 years.

- **Sulfur Hexafluoride:** SF_6 is a colorless gas soluble in alcohol and ether and slightly soluble in water. SF_6 is used for insulation in electric power transmission and distribution equipment, semiconductor manufacturing, the magnesium industry, and as a tracer gas for leak detection.
- **Nitrogen Trifluoride:** NF_3 is used in the manufacture of a variety of electronics, including semiconductors and flat panel displays.

Chlorofluorocarbons. CFCs are synthetic chemicals that have been used as cleaning solvents, refrigerants, and aerosol propellants. CFCs are chemically unreactive in the lower atmosphere (troposphere) and the production of CFCs was prohibited in 1987 due to the chemical destruction of stratospheric O_3.

Hydrochlorofluorocarbons. HCFCs are a large group of compounds, whose structure is very close to that of CFCs—containing hydrogen, fluorine, chlorine, and carbon atoms—but including one or more hydrogen atoms. Like HFCs, HCFCs are used in refrigerants and propellants. HCFCs were also used in place of CFCs for some applications; however, their use in general is being phased out.

Black Carbon. Black carbon is a component of fine particulate matter, which has been identified as a leading environmental risk factor for premature death. It is produced from the incomplete combustion of fossil fuels and biomass burning, particularly from older diesel engines and forest fires. Black carbon warms the atmosphere by absorbing solar radiation, influences cloud formation, and darkens the surface of snow and ice, which accelerates heat absorption and melting. Black carbon is a short-lived species that varies spatially, which makes it difficult to quantify the global warming potential. Diesel particulate matter emissions are a major source of black carbon and are TACs that have been regulated and controlled in California for several decades to protect public health.

Water Vapor. The primary source of water vapor is evaporation from the ocean, with additional vapor generated by sublimation (change from solid to gas) from ice and snow, evaporation from other water bodies, and transpiration from plant leaves. Water vapor is the most important, abundant, and variable GHG in the atmosphere and maintains a climate necessary for life.

Ozone. Tropospheric O_3, which is created by photochemical reactions involving gases from both natural sources and human activities, acts as a GHG. Stratospheric O_3, which is created by the interaction between solar ultraviolet radiation and molecular oxygen (O_2), plays a decisive role in the stratospheric radiative balance. Depletion of stratospheric O_3, due to chemical reactions that may be enhanced by climate change, results in an increased ground-level flux of ultraviolet-B radiation.

Aerosols. Aerosols are suspensions of particulate matter in a gas emitted into the air through burning biomass (plant material) and fossil fuels. Aerosols can warm the atmosphere by absorbing and emitting heat and can cool the atmosphere by reflecting light.

Global Warming Potential

Gases in the atmosphere can contribute to climate change both directly and indirectly. Direct effects occur when the gas itself absorbs radiation. Indirect radiative forcing occurs when chemical transformations of the substance produce other GHGs, when a gas influences the atmospheric lifetimes of other gases, and/or when a gas affects atmospheric processes that alter the radiative balance of the Earth (e.g., affect cloud formation or albedo) (EPA 2017). The Intergovernmental Panel on Climate Change (IPCC) developed the GWP concept to compare the ability

of each GHG to trap heat in the atmosphere relative to another gas. The GWP of a GHG is defined as the ratio of the time-integrated radiative forcing from the instantaneous release of 1 kilogram of a trace substance relative to that of 1 kilogram of a reference gas (IPCC 2014). The reference gas used is CO_2; therefore, GWP-weighted emissions are measured in metric tons of CO_2 equivalent (MT CO_2e).

The current version of the California Emissions Estimator Model (CalEEMod) (Version 2022.1) assumes that the GWP for CH_4 is 25 (so emissions of 1 MT of CH_4 are equivalent to emissions of 25 MT of CO_2), and the GWP for N_2O is 298, based on the IPCC's Fourth Assessment Report (IPCC 2007).

Greenhouse Gas Inventories

Global Inventory

Anthropogenic GHG emissions worldwide in 2020 (the most recent year for which data is available) totaled approximately 49,800 million metric tons (MMT) of CO_2e, excluding land use change and forestry (PBL 2022). The top six GHG emitters include China, the United States, the Russian Federation, India, Japan, and the European Union, which accounted for approximately 60% of the total global emissions, or approximately 30,270 MMT CO_2e (PBL 2022). Table 4.6-1 presents the top GHG-emissions-producing countries.

Table 4.6-1. Six Top GHG Producer Countries

Emitting Countries	2020 GHG Emissions (MMT CO_2e)[a]
China	14,300
United States	5,640
European Union	3,440
India	3,520
Russian Federation	2,210
Japan	1,160
Total	**30,270**

Source: PBL 2022.
Notes: MMT CO_2e = million metric tons of carbon dioxide equivalent.
[a] Column may not add due to rounding.

National Inventory

Per the EPA's Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2021, total United States GHG emissions were approximately 6,340.2 million MT CO_2e (MMT CO_2e) in 2021 (EPA 2023). Total U.S. emissions have decreased by 2.3% from 1990 to 2021, down from a high of 15.8% above 1990 levels in 2007. Emissions increased from 2020 to 2021 by 5.2% (314.3 MMT CO_2e). Net emissions (i.e., including sinks) were 5,586.0 MMT CO_2e in 2021. Overall, net emissions increased 6.4% from 2020 to 2021 and decreased 16.6% from 2005 levels Between 2020 and 2021, the increase in total GHG emissions was driven largely by an increase in CO_2 emissions from fossil fuel combustion due to economic activity rebounding after the height of the COVID-19 pandemic. The CO_2 emissions from fossil fuel combustion increased by 6.8% from 2020 to 2021, including an 11.4% increase in transportation sector emissions and a 7.0% increase in electric power sector emissions. The increase in electric power sector emissions was due in part to an increase in electricity demand of 2.4% since 2020. Overall, there has been a decrease in electric power sector emissions from 1990 through 2021, which reflects the combined impacts of long-term trends in many factors, including population, economic growth, energy markets, technological changes including energy efficiency, and the carbon intensity of energy fuel choices (EPA 2023).

State Inventory

According to California's 2000–2020 GHG emissions inventory (2022 edition), California emitted approximately 369.2 MMT CO_2e in 2020, including emissions resulting from out-of-state electrical generation (CARB 2022a). The sources of GHG emissions in California include transportation, industry, electric power production from both in-state and out-of-state sources, residential and commercial activities, agriculture, high-GWP substances, and recycling and waste. Table 4.6-2 presents California GHG emission source categories and their relative contributions to the emissions inventory in 2020.

Table 4.6-2. GHG Emissions Sources in California

Source Category	Annual GHG Emissions (MMT CO_2e)	Percent of Total*
Transportation	136.60	37%
Industrial uses	73.84	20%
Electricity generation[a]	59.07	16%
Residential and commercial uses	36.92	10%
Agriculture and Forestry	33.22	9%
High GWP substances	22.15	6%
Recycling and waste	7.38	2%
Totals	**369.2**	**100%**

Source: CARB 2022a.
Notes: GHG = greenhouse gas; GWP = global warming potential; MMT CO_2e = million metric tons of carbon dioxide equivalent. Emissions reflect 2020 California GHG inventory.
* Totals may not sum due to rounding.
[a] Includes emissions associated with imported electricity, which account for 18.46 MMT CO_2e.

Per capita GHG emissions in California have dropped from a 2001 peak of 13.8 MT per person to 9.3 MT per person in 2020, a 33% decrease. In 2016, statewide GHG emissions dropped below the 2020 GHG limit of 431 MMT CO2e and have remained below that level since that time (CARB 2022a).

Local Inventory

The Town has an adopted Climate Action Plan (CAP), which was approved in July 2010. The Town of Apple Valley adopted a 2019 CAP Update in 2021, which includes the following 2019 GHG emissions inventory presented in Table 4.6-3, Town of Apple Valley Greenhouse Gas Emissions Summary by Sector – Year 2019 (Town of Apple Valley 2021):

Table 4.6-3. Town of Apple Valley Greenhouse Gas Emissions Summary by Sector – Year 2019

Source Category	Annual GHG Emissions (MT CO_2e)	Percent of Total[a]
Community		
Residential	118,327	19.80%
Commercial	31,071	5.20%
Industrial	10,371	1.74%
On-Road Transportation	405,797	67.90%
Solid Waste	17,229	2.88%

Table 4.6-3. Town of Apple Valley Greenhouse Gas Emissions Summary by Sector – Year 2019

Source Category	Annual GHG Emissions (MT CO_2e)	Percent of Total[a]
Off-Road Vehicles	11,479	1.92%
Subtotal	*594,274*	*99.43%*
Municipal		
Buildings and Facilities	1,332	0.22%
Employee Commute	195	0.03%
Municipal Fleet	286	0.05%
Police Fleet	685	0.11%
Solid Waste	909	0.15%
Subtotal	*3,407*	*0.57%*
Town-Wide Total	**597,681**	**100.00%**

Source: Town of Apple Valley 2021.
Notes: GHG = greenhouse gas; MT CO_2e = metric tons of carbon dioxide equivalent
Emissions reflect 2019 Town of Apple Valley GHG inventory.
[a] Percent of total has been rounded, and total does not sum due to rounding.

As shown on Table 4.6-3, approximately 68% of the Town's GHG emissions in 2019 were attributed to transportation sources. All other sources combined accounted for about 32% of the Town's GHGs in 2019.

Potential Effects of Climate Change

Globally, climate change has the potential to affect numerous environmental resources through uncertain impacts related to future air temperatures and precipitation patterns. The 2014 IPCC Synthesis Report (IPCC 2014) indicated that warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia. Signs that global climate change has occurred include warming of the atmosphere and ocean, diminished amounts of snow and ice, rising sea levels, and ocean acidification (IPCC 2014).

In California, climate change impacts have the potential to affect sea-level rise, agriculture, snowpack and water supply, forestry, wildfire risk, public health, frequency of severe weather events, and electricity demand and supply. The primary effect of global climate change has been a rise in average global tropospheric temperature. Reflecting the long-term warming trend since pre-industrial times, observed global mean surface temperature for the decade 2006–2015 was 0.87°C (likely between 0.75°C and 0.99°C) higher than the average over the 1850–1900 period (IPCC 2018). Scientific modeling predicts that continued emissions of GHGs at or above current rates would induce more extreme climate changes during the twenty-first century than were observed during the twentieth century. Human activities are estimated to have caused approximately 1.0°C (1.8°F) of global warming above pre-industrial levels, with a likely range of 0.8°C to 1.2°C (1.4°F to 2.2°F) (IPCC 2018). Global warming is likely to reach 1.5°C (2.7°F) between 2030 and 2052 if it continues to increase at the current rate (IPCC 2018).

Although climate change is driven by global atmospheric conditions, climate change impacts are felt locally. A scientific consensus confirms that climate change is already affecting California. The Office of Environmental Health Hazard Assessment identified various indicators of climate change in California, which are scientifically based measurements that track trends in various aspects of climate change. Many indicators reveal discernible evidence that climate change is occurring in California and is having significant, measurable impacts in the state. Changes

in the state's climate have been observed including an increase in annual average air temperature with record warmth from 2012 to 2016, more frequent extreme heat events, more extreme drought, a decline in winter chill, an increase in cooling degree days and a decrease in heating degree days, and an increase in variability of statewide precipitation (OEHHA 2018).

Warming temperatures and changing precipitation patterns have altered California's physical systems—the ocean, lakes, rivers and snowpack—upon which the state depends. Winter snowpack and spring snowmelt runoff from the Sierra Nevada and southern Cascade Mountains provide approximately one-third of the state's annual water supply. Impacts of climate on physical systems have been observed such as high variability of snow-water content (i.e., amount of water stored in snowpack), decrease in spring snowmelt runoff, glacier change (loss in area), rise in sea levels, increase in average lake water temperature and coastal ocean temperature, and a decrease in dissolved oxygen in coastal waters (OEHHA 2018).

Impacts of climate change on biological systems, including humans, wildlife, and vegetation, have also been observed including climate change impacts on terrestrial, marine, and freshwater ecosystems. As with global observations, species responses include those consistent with warming: elevational or latitudinal shifts in range, changes in the timing of key plant and animal life cycle events, and changes in the abundance of species and in community composition. Humans are better able to adapt to a changing climate than plants and animals in natural ecosystems. Nevertheless, climate change poses a threat to public health as warming temperatures and changes in precipitation can affect vector-borne pathogen transmission and disease patterns in California as well as the variability of heat-related deaths and illnesses. In addition, since 1950, the area burned by wildfires each year has been increasing.

The California Natural Resources Agency (CNRA) has released four California Climate Change Assessments (2006, 2009, 2012, and 2018), which have addressed the following: acceleration of warming across the state, more intense and frequent heat waves, greater riverine flows, accelerating sea level rise, more intense and frequent drought, more severe and frequent wildfires, more severe storms and extreme weather events, shrinking snowpack and less overall precipitation, and ocean acidification, hypoxia, and warming. To address local and regional governments' need for information to support action in their communities, the Fourth Assessment (CNRA 2018a) includes reports for nine regions of the state, including the Inland Deserts Region, which includes San Bernardino County where the Project is located. Key projected climate changes for the Inland Desert Region include the following (CNRA 2018a):

- Continued future warming over the Inland Deserts region. Across the region, average maximum temperatures are projected to increase around 6°F to 10°F by the mid-century, and 8°F to 14°F by the late-century.
- Extreme temperatures are also expected to increase. The hottest day of the year may be up to 9°F warmer for many locations across the Inland Deserts region by the late century under certain model scenarios. The number of extremely hot days is also expected to increase across the region.
- Despite small changes in average precipitation, dry and wet extremes are both expected to increase. By the late twenty-first century, the wettest day of the year is expected to increase across most of the Inland Deserts region, with some locations experiencing a 30% increase under certain model scenarios. The combination of more intense rainfall and drier soils in an already very dry region will increase the probability of flash floods.
- Projections indicate that wildfire may increase over Southern California, but there remains uncertainty in quantifying future changes of burned area over the Inland Deserts region.

4.6.2 Relevant Regulations, Plans, Policies, and Ordinances

International

United Nations Framework Convention on Climate Change, Kyoto Protocol, and Paris Agreement

In 1992, numerous countries joined an international treaty—the United Nations Framework Convention on Climate Change (UNFCCC)—as a framework for international cooperation to combat climate change by limiting average global temperature increases and the resulting climate change, and coping with associated impacts. Currently, there are 197 Parties (196 states and 1 regional economic integration organization) in the UNFCCC (UNFCCC 2019).

By 1995, countries launched negotiations to strengthen the global response to climate change, and, 2 years later, adopted the Kyoto Protocol, which was the first international agreement to regulate GHG emissions. The Kyoto Protocol legally binds developed country Parties to emission reduction targets. The Protocol's first commitment period started in 2008 and ended in 2012. The second commitment period began on January 1, 2013, and ended in 2020. More than 160 countries signed the Kyoto Protocol (UNFCCC 2019). In 2001, President George W. Bush indicated that he would not submit the treaty to the U.S. Senate for ratification, which effectively ended the United States' involvement in the Kyoto Protocol.

The 2015 Paris Agreement, adopted in Paris on December 12, 2015, marks the latest step in the evolution of the United Nations' climate change regime and builds on the work undertaken under the UNFCCC. The Paris Agreement charts a new course in the global effort to combat climate change. 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°C above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5°C (UNFCCC 2019). The Paris Agreement also aims to strengthen the ability of countries to deal with the impacts of climate change. The Paris Agreement requires all Parties to put forward their best efforts through nationally determined contributions and to strengthen these efforts in the years ahead.

The Paris Agreement entered into force on November 4, 2016, 30 days after the date on which at least 55 Parties to the UNFCCC (including the United States), accounting in total for at least an estimated 55% of the total global GHG emissions, deposited their instruments of ratification, acceptance, approval or accession with the Depositary (UNFCCC 2019). On November 4, 2019, the Trump Administration gave formal notice of the Unites States' intention to withdraw from the Paris Agreement; which was formally recognized on November 4, 2019. The Biden Administration re-joined the Paris Agreement on January 21, 2021, which was accepted by the United Nations, and the United States formally re-entered into the Paris Agreement on February 29, 2021.

Federal

Massachusetts v. EPA

In *Massachusetts v. EPA* (April 2007), the U.S. Supreme Court directed the EPA administrator to determine whether GHG emissions from new motor vehicles cause or contribute to air pollution that may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. In December 2009, the administrator signed a final rule with the following two distinct findings regarding GHGs under Section 202(a) of the federal Clean Air Act:

- The Administrator found that elevated concentrations of GHGs—CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6—in the atmosphere threaten the public health and welfare of current and future generations. This is the "endangerment finding."
- The Administrator further found the combined emissions of GHGs—CO_2, CH_4, N_2O, and HFCs—from new motor vehicles and new motor vehicle engines contribute to the GHG air pollution that endangers public health and welfare. This is the "cause or contribute finding."

Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 (December 2007), among other key measures, includes the following, which aids in the reduction of national GHG emissions (EPA 2007):

- Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use over 30 billion gallons of biofuel (with different volume targets for different types of biofuels) in 2023.
- Set a target of 35 miles per gallon for the combined fleet of cars and light trucks by model year 2020 and directs National Highway Traffic Safety Administration (NHTSA) to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.
- Prescribe or revise standards affecting regional efficiency for heating and cooling products and procedures for new or amended standards, energy conservation, energy-efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

Federal Vehicle Standards.

In 2007, in response to the *Massachusetts v. EPA* U.S. Supreme Court ruling discussed above, the Bush Administration issued Executive Order (EO) 13432 directing EPA, the Department of Transportation, and the Department of Energy to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. In 2009, the National Highway Traffic Safety Administration (NHTSA) issued a final rule regulating fuel efficiency and GHG emissions from cars and light-duty trucks for model year 2011; and, in 2010, the EPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012 through 2016 (75 FR 25324–25728).

In 2019, the EPA and NHTSA published the Safer Affordable Fuel-Efficient Vehicles Rule Part One: One National Program (SAFE-1) (84 FR 51310), which revoked California's authority to set its own GHG emissions standards and set zero-emission vehicle (ZEV) mandates in California. In March 2020, Part Two was issued, which set CO_2 emissions standards and corporate average fuel economy (CAFE) standards for passenger vehicles and light-duty trucks for model years 2021 through 2026.

On December 21, 2021, NHTSA finalized the CAFE Preemption rulemaking to withdraw its portions of the Part One Rule. The final rule concluded that the Part One Rule overstepped the agency's legal authority and established overly broad prohibitions that did not account for a variety of important state and local interests. Then, in March 2022, NHTSA established new fuel economy standards that would require an industry-wide fleet average of approximately 49 miles per gallon for passenger cars and light trucks in model year 2026, by increasing fuel efficiency by 8% annually for model years 2024 and 2025, and 10% annually for model year 2026.

The Inflation Reduction Act of 2022

The Inflation Reduction Act was signed into law by President Biden in August 2022. The bill includes specific investment in energy and climate reform and is projected to reduce GHG emissions within the United States by 40% as compared to 2005 levels by 2030. The bill allocates funds to boost renewable energy infrastructure (e.g., solar panels and wind turbines), includes tax credits for the purchase of electric vehicles, and includes measures that will make homes more energy efficient.

State

The statewide GHG emissions regulatory framework is summarized below by category: state climate change targets, building energy, renewable energy and energy procurement, mobile sources, solid waste, water, and other state regulations and goals. The following text describes EOs, legislation, regulations, and other plans and policies that would directly or indirectly reduce GHG emissions and/or address climate change issues.

State Climate Change Targets

The state has taken a number of actions to address climate change. These actions are summarized below, and include EOs, legislation, and CARB plans and requirements.

Executive Order S-3-05

EO S-3-05 (June 2005) identified GHG emissions-reduction targets and laid out responsibilities among the state agencies for implementing the EO and for reporting on progress toward the targets. This EO identified the following targets:

- By 2010, reduce GHG emissions to 2000 levels.
- By 2020, reduce GHG emissions to 1990 levels.
- By 2050, reduce GHG emissions to 80% below 1990 levels.

EO S-3-05 also directed the California Environmental Protection Agency to report biannually on progress made toward meeting the GHG targets and the impacts to California due to global warming, including impacts to water supply, public health, agriculture, the coastline, and forestry.

Assembly Bill 32

In furtherance of the goals identified in EO S-3-05, the Legislature enacted AB 32, the California Global Warming Solutions Act of 2006 (California Health and Safety Code Sections 38500–38599). AB 32 provided initial direction on creating a comprehensive multiyear program to limit California's GHG emissions at 1990 levels by 2020, and initiate the transformations required to achieve the state's long-range climate objectives.

Executive Order B-30-15

EO B-30-15 (April 2015) identified an interim GHG-reduction target in support of targets previously identified under S-3-05 and AB 32. EO B-30-15 set an interim target goal of reducing GHG emissions to 40% below 1990 levels by 2030 to keep California on its trajectory toward meeting or exceeding the long-term goal of reducing GHG emissions to 80% below 1990 levels by 2050, as set forth in S-3-05. To facilitate achieving this goal, EO B-30-15 called for CARB to update the Climate Change Scoping Plan (Scoping Plan) to express the 2030 target in terms of MMT CO_2e. The EO also called for state agencies to continue to develop and implement GHG emission-reduction programs in support of the reduction targets.

Senate Bill 32 and Assembly Bill 197

SB 32 and AB 197 (enacted in 2016) are companion bills. SB 32 codified the 2030 emissions-reduction goal of EO B-30-15 by requiring CARB to support that statewide GHG emissions are reduced to 40% below 1990 levels by 2030. AB 197 established the Joint Legislative Committee on Climate Change Policies, consisting of at least three members of the Senate and three members of the Assembly, to provide ongoing oversight over implementation of the state's climate policies. AB 197 also added two members of the Legislature to the Board as nonvoting members; requires CARB to make available and update (at least annually via its website) emissions data for GHGs, criteria air pollutants, and toxic air contaminants from reporting facilities; and requires CARB to identify specific information for GHG emissions-reduction measures when updating the Scoping Plan.

Executive Order B-55-18

EO B-55-18 (September 2018) identified a policy for the state to achieve carbon neutrality as soon as possible (no later than 2045) and achieve and maintain net negative emissions thereafter. The goal is an addition to the existing statewide targets of reducing the state's GHG emissions. CARB will work with relevant state agencies to facilitate that future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal.

Assembly Bill 1279

The Legislature enacted AB 1279, the California Climate Crisis Act, in September 2022. The bill declares the policy of the state to achieve net zero GHG emissions as soon as possible, but no later than 2045, and achieve and maintain net negative GHG emissions thereafter. Additionally, the bill requires that by 2045, statewide anthropogenic GHG emissions be reduced to at least 85% below 1990 levels.

Although AB 1279 establishes an overall policy to achieve net zero greenhouse gas emissions as soon as possible, but no later than 2045, recognizing the need to implement CO_2 removal and carbon capture, utilization and storage technologies, the Legislature established a specific target of 85% below 1990 levels by 2045 for anthropogenic GHG emissions. Therefore, the net zero target does not directly apply to development projects, but the 2045 target of 85% below 1990 levels represents the reductions required to contribute to accomplishing the State's overall net zero policy.

California Air Resources Board's Climate Change Scoping Plan

One specific requirement of AB 32 is for CARB to prepare a scoping plan for achieving the maximum technologically feasible and cost-effective GHG emission reductions by 2020 (California Health and Safety Code Section 38561[a]), and to update the plan at least once every 5 years. In 2008, CARB approved the first scoping plan: The Climate

Change Proposed Scoping Plan: A Framework for Change (Scoping Plan) (CARB 2008). In 2014, CARB approved the first update to the Scoping Plan. The First Update to the Climate Change Scoping Plan: Building on the Framework (2014 Scoping Plan) defined the state's GHG emission reduction priorities for the next 5 years and laid the groundwork to start the transition to the post-2020 goals set forth in EO S-3-05 and EO B-16-2012 (CARB 2014). The 2014 Scoping Plan concluded that California was on track to meet the 2020 target, but recommended that a 2030 mid-term GHG reduction target be established to support a continuum of action to reduce emissions. The 2017 Climate Change Scoping Plan Update (2017 Scoping Plan) (CARB 2017a) built on the successful framework established in the initial Scoping Plan and 2014 Scoping Plan, while identifying new technologically feasible and cost-effective strategies to serve as the framework to achieve the 2030 GHG target and define the state's climate change priorities to 2030 and beyond.

The Final 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan) was issued on November 16, 2022 (CARB 2022b) and approved on December 15, 2022. The 2022 Scoping Plan lays out a path not just to carbon neutrality by 2045 but also to the 2030 GHG emissions reduction target. The 2022 Scoping Plan analyzed four scenarios, with the objective of informing the most viable path to remain on track to achieve the 2030 GHG reduction target. The scenario modeling indicates that, if the plan described in the Proposed Scenario is fully implemented, and done so on schedule, the State would cut GHG emissions by 85% below 1990 levels, result in a 71% reduction in smog-forming air pollution, reduce fossil fuel consumption by 94%, create 4 million new jobs, among other benefits (CARB 2022b).

The 2022 Scoping Plan also emphasizes that there is no realistic path to carbon neutrality without carbon removal and sequestration, and to achieve the state's carbon neutrality goal, carbon reduction programs must be supplemented by strategies to remove and sequester carbon. Strategies for carbon removal and sequestration include carbon capture and storage (CCS) from anthropogenic point sources, where CO_2 is captured as it leaves a facility's smokestack and is injected into geologic formations or used in industrial materials (e.g., concrete); and carbon dioxide removal (CDR) from ambient air, through mechanical (e.g., direct air capture with sequestration [DACS]) or nature-based (e.g., management of natural and working lands) applications.

The Scoping Plan recommends strategies for implementation at the statewide level to meet the goals of AB 32, SB 32, and the EOs; it also establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions. A project is considered consistent with the statutes and EOs if it would meet the general policies in reducing GHG emissions to facilitate the achievement of the state's goals and would not impede attainment of those goals.

California Air Resources Board's Regulations for the Mandatory Reporting of GHG Emissions

CARB's Regulation for the Mandatory Reporting of GHG Emissions (17 CCR 95100–95157) incorporated by reference certain requirements that EPA promulgated in its Final Rule on Mandatory Reporting of GHGs (40 CFR, Section 98). Specifically, Section 95100(c) of the Mandatory Reporting Regulation incorporated those requirements that EPA promulgated in the Federal Register on October 30, 2009; July 12, 2010; September 22, 2010; October 28, 2010; November 30, 2010; December 17, 2010; and April 25, 2011. In general, entities subject to the Mandatory Reporting Regulation that emit over 10,000 MT CO_2e per year are required to report annual GHG emissions through the California Electronic GHG Reporting Tool. Certain sectors, such as refineries and cement plants, are required to report regardless of emission levels. Entities that emit more than the 25,000 MT CO_2e per year threshold are required to have their GHG emissions report verified by a CARB-accredited third party.

Executive Order B-18-12

EO B-18-12 (April 2012) directed state agencies, departments, and other entities under the Governor's executive authority to take action to reduce entity-wide GHG emissions by at least 10% by 2015 and 20% by 2020, as measured against a 2010 baseline. EO B-18-12 also identified goals for existing state buildings for reducing grid-based energy purchases and water use.

Senate Bill 605 and Senate Bill 1383

SB 605 (2014) requires CARB to complete a comprehensive strategy to reduce emissions of SLCPs in the state (California Health and Safety Code Section 39730) and SB 1383 (2016) requires CARB to approve and implement that strategy by January 1, 2018 (California Public Resources Code Sections 42652–43654). SB 1383 also establishes specific targets for the reduction of SLCPs (40% below 2013 levels by 2030 for CH_4 and HFCs, and 50% below 2013 levels by 2030 for anthropogenic black carbon) and provides direction for reductions from dairy and livestock operations and landfills. Accordingly, and as mentioned above, CARB adopted its SLCP Reduction Strategy in March 2017 (CARB 2017b). The SLCP Reduction Strategy establishes a framework for the statewide reduction of emissions of black carbon, methane, and fluorinated gases (CARB 2017b).

Assembly Bill 1757

AB 1757 (September 2022) requires the CNRA to determine a range of targets for natural carbon sequestration, and for nature-based climate solutions that reduce GHG emissions for future years 2030, 2038, and 2045. These targets are to be determined by no later than January 1, 2024, and are established to support the state's goals to achieve carbon neutrality and foster climate adaptation and resilience.

Building Energy

The California Building Standards Code was established in 1978 and serves to enhance and regulate California's building standards. While not initially promulgated to reduce GHG emissions, Part 6 of Title 24 specifically established Building Energy Efficiency Standards that are designed to support that new and existing buildings in California achieve energy efficiency and preserve outdoor and indoor environmental quality. These energy efficiency standards are reviewed every 3 years by the Building Standards Commission and the California Energy Commission (CEC) and revised if necessary (California Public Resources Code Section 25402[b][1]). The regulations receive input from members of industry, as well as the public, to "reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy" (California Public Resources Code Section 25402). These regulations are carefully scrutinized and analyzed for technological and economic feasibility (California Public Resources Code Section 25402[d]) and cost effectiveness (California Public Resources Code Section 25402[b][2–3]). As a result, these standards save energy, increase electricity supply reliability, increase indoor comfort, avoid the need to construct new power plants, and help preserve the environment. The current Title 24 standards are the 2022 Title 24 building energy efficiency standards, which became effective January 1, 2023.

The 2022 Title 24 standards will improve upon the 2019 standards for new construction of, and additions and alterations to, residential and nonresidential buildings. CEC adopted the 2022 Title 24 Energy Code in August 2021 and the California Building Standards Commission approved incorporating the updated code into the California

Building Standards Code (CALGreen) in December 2021. The 2022 Energy Code went into effect on January 1, 2023. The 2022 Energy Code focuses on four key areas in newly constructed homes and businesses:

- Encouraging electric heat pump technology for space and water heating, which consumes less energy and produces fewer emissions than gas-powered units
- Establishing electric-ready requirements for single-family homes to position owners to use cleaner electric heating, cooking, and electric vehicle (EV) charging options whenever they choose to adopt those technologies
- Expanding solar photovoltaic (PV) system and battery storage standards to make clean energy available on site and complement the state's progress toward a 100% clean electricity grid
- Strengthening ventilation standards to improve indoor air quality

In addition to CEC's efforts, in 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11 of Title 24), which is commonly referred to as California's Green Building Standards (CALGreen), establishes minimum mandatory standards and voluntary standards pertaining to the planning and design of sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and interior air quality. The CALGreen 2022 standards, which are the current standards, became effective January 1, 2023. CALGreen instituted mandatory minimum environmental performance standards for all ground-up, new construction of commercial, low-rise residential, and state-owned buildings, as well as schools and hospitals. The current mandatory standards require the following:

- In new projects or additions to alterations that add 10 or more vehicular parking spaces, provide designated parking for low-emitting, fuel-efficient and carpool/van pool vehicles.
- Construction shall facilitate future installation of EV supply equipment.
- Shade trees shall be planted to comply with specifications for surface parking areas, landscape areas, and hardscape areas.
- Water conserving plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with efficiency standards.
- Outdoor potable water use in landscaped areas shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources Model Water Efficient Landscape Ordinance, whichever is more stringent.
- Outdoor recycled water supply systems shall be installed in accordance with applicable state codes.
- Installations of heating, ventilation, and air conditioning (HVAC); refrigeration; and fire suppression equipment shall comply with specified standards.

The CALGreen standards also include voluntary efficiency measures that are implemented at the discretion of agencies and applicants.

Renewable Energy and Energy Procurement

SB 1078 (2002) (California Public Utilities Code Section 399.11 et seq.) established the Renewables Portfolio Standard (RPS) program, which required an annual increase in renewable generation by the electricity utilities equivalent to at least 1% of sales, with an aggregate goal of 20% by 2017. The RPS program has been updated multiple times since its adoption, with the most recent revisions in SB 100 and SB 1020, which are described below.

SB 100 (2018) increased the standards set forth in SB 350, establishing that 44% of the total electricity sold to retail customers in California per year by December 31, 2024; 52% by December 31, 2027; and 60% by December 31, 2030, be secured from qualifying renewable energy sources. SB 100 states that it is the policy of the state that eligible renewable energy resources and zero-carbon resources supply 100% of the retail sales of electricity to California. This bill requires that the achievement of 100% zero-carbon electricity resources do not increase the carbon emissions elsewhere in the western grid and that the achievement not be achieved through resource shuffling.

SB 1020 (September 2022) revises the standards from SB 100, requiring the following percentage of retail sales of electricity to California end-use customers to come from eligible renewable energy resources and zero-carbon resources: 90% by December 31, 2035; 95% by December 31, 2040; and 100% by December 31, 2045.

Mobile Sources

State Vehicle Standards (Assembly Bill 1493 and Executive Order B-16-12)

AB 1493 (July 2002) was enacted in a response to the transportation sector accounting for more than half of California's CO_2 emissions. AB 1493 required CARB to set GHG emission standards for passenger vehicles, light-duty trucks, and other vehicles determined by CARB to be vehicles that are primarily used for noncommercial personal transportation in the state. EO B-16-12 (March 2012) required that state entities under the governor's direction and control support and facilitate the rapid commercialization of ZEVs. On a statewide basis, EO B-16-12 identified a target reduction of GHG emissions from the transportation sector equaling 80% less than 1990 levels by 2050.

Heavy-Duty Diesel

CARB adopted the final Heavy-Duty Truck and Bus Regulation on December 31, 2014, to reduce DPM, a major source of black carbon, and NO_x emissions from heavy-duty diesel vehicles (13 CCR Part 2025). The rule requires that DPM filters be applied to newer heavier trucks and buses by January 1, 2012, with older vehicles required to comply by January 1, 2015. The rule will require nearly all diesel trucks and buses to be compliant with the 2010 model year engine requirement by January 1, 2023. CARB also adopted an Airborne Toxics Control Measure to limit idling of diesel-fueled commercial vehicles on December 12, 2013. This rule requires diesel-fueled vehicles with gross vehicle weights greater than 10,000 pounds to idle no more than 5 minutes at any location (13 CCR Part 2485).

Executive Order S-1-07

EO S-1-07 (January 2007, implementing regulation adopted in April 2009) sets a declining Low Carbon Fuel Standard for GHG emissions measured in CO_2e grams per unit of fuel energy sold in California. The target of the Low Carbon Fuel Standard was to reduce the carbon intensity of California passenger vehicle fuels by at least 10% by 2020 (17 CCR 95480 et seq.). The carbon intensity measures the amount of GHG emissions in the lifecycle of a fuel—including extraction/feedstock production, processing, transportation, and final consumption—per unit of energy delivered.

Senate Bill 375

SB 375 (California Government Code Section 65080) addresses GHG emissions associated with the transportation sector through regional transportation and sustainability plans. SB 375 required CARB to adopt regional GHG-reduction targets for the automobile and light-truck sector for 2020 and 2035, and to update those targets every 8 years. SB 375 requires the state's 18 regional metropolitan planning organizations (MPOs) to prepare a sustainable communities strategy (SCS) as part of their Regional Transportation Plan (RTP) that will achieve the GHG-reduction targets set by CARB. If an MPO is unable to devise an SCS to achieve the GHG-reduction target, the MPO must prepare an alternative planning strategy demonstrating how the GHG-reduction target would be achieved through alternative development patterns, infrastructure, or additional transportation measures or policies.

An SCS does not: (1) regulate the use of land; (2) supersede the land use authority of cities and counties; or (3) require that a city's or county's land use policies and regulations, including those in a general plan, be consistent with it (California Government Code Section 65080[b][2][K]). Nonetheless, SB 375 makes regional and local planning agencies responsible for developing those strategies as part of the federally required metropolitan transportation planning process and the state-mandated housing element process.

Advanced Clean Cars Program and Zero-Emissions Vehicle Program

The Advanced Clean Cars (ACC) I program (January 2012) is an emissions-control program for model years 2015 through 2025. The program combines the control of smog- and soot-causing pollutants and GHG emissions into a single coordinated package of regulations: the Low-Emission Vehicle (LEV) regulation for criteria air pollutant and GHG emissions and a technology forcing regulation for ZEVs that contributes to both types of emission reductions (CARB 2023). The package includes elements to reduce smog-forming pollution, reduce GHG emissions, promote clean cars, and provide the fuels for clean cars. To improve air quality, CARB has implemented new emission standards to reduce smog-forming emissions beginning with 2015 model year vehicles. It is estimated that in 2025 cars will emit 75% less smog-forming pollution than the average new car sold in 2015. The ZEV program will act as the focused technology of the ACC I program by requiring manufacturers to produce increasing numbers of ZEVs and plug-in hybrid EVs in the 2018 to 2025 model years.

The ACC II program, which was adopted in August 2022, established the next set of LEV and ZEV requirements for model years after 2025 to contribute to meeting federal ambient air quality ozone standards and California's carbon neutrality standards (CARB 2023). The main objectives of ACC II are as follows:

- Maximize criteria air pollutant and GHG emission reductions through increased stringency and real-world reductions.
- Accelerate the transition to ZEVs through both increased stringency of requirements and associated actions to support wide-scale adoption and use.

The ACC II rulemaking package also considers technological feasibility, environmental impacts, equity, economic impacts, and consumer impacts.

Executive Order N-79-20

EO N-79-20 (September 2020) requires CARB to develop regulations as follows: (1) Passenger vehicle and truck regulations requiring increasing volumes of new ZEVs sold in the state towards the target of 100% of in-state sales by 2035; (2) medium- and heavy-duty vehicle regulations requiring increasing volumes of new zero-emission trucks

and buses sold and operated in the state towards the target of 100% of the fleet transitioning to ZEVs by 2045 everywhere feasible and for all drayage trucks to be zero emission by 2035; and (3) strategies, in coordination with other state agencies, the EPA, and local air districts, to achieve 100% zero emissions from off-road vehicles and equipment operations in the state by 2035. EO N-79-20 called for the development of a ZEV Market Development Strategy, which was released February 2021, to be updated every 3 years, that ensures supports coordination and implementation of the EO and outlines actions to support new and used ZEV markets. In addition, the EO specifies identification of near-term actions, and investment strategies, to improve clean transportation, sustainable freight, and transit options; and calls for development of strategies, recommendations, and actions by July 15, 2021, to manage and expedite the responsible closure and remediation of former oil extraction sites as the state transitions to a carbon-neutral economy.

Advanced Clean Trucks Regulation

The Advanced Clean Trucks (ACT) Regulation was also approved by CARB in 2020. The purpose of the ACT Regulation is to accelerate the market for ZEVs in the medium- and heavy-duty truck sector and to reduce air pollutant emissions generated from on-road mobile sources (CARB 2021). The regulation has two components, (1) a manufacturer sales requirement and (2) a reporting requirement:

- Zero-emission truck sales: Manufacturers who certify Class 2b–8 chassis or complete vehicles with combustion engines will 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.
- Company and fleet reporting: Large employers including retailers, manufacturers, brokers, and others will be required to report information about shipments and shuttle services. Fleet owners with 50 or more trucks will be required to report about their existing fleet operations. This information will help identify future strategies to ensure that fleets purchase available zero-emission trucks and place them in service where suitable to meet their needs.

Water

SB X7-7, or the Water Conservation Act of 2009, required that all water suppliers increase their water use efficiency with an overall goal of reducing per capita urban water use by 20% by December 31, 2020. Each urban water supplier was required to develop water use targets to meet this goal.

Solid Waste

AB 1826 (Chapter 727, Statutes of 2014, effective 2016) requires businesses to recycle their organic waste (i.e., food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste) depending on the amount of waste they generate per week. The minimum threshold of organic waste generation by businesses decreases over time, which means an increasingly greater proportion of the commercial sector will be required to comply.

SB 1383 (2016) requires a 50% reduction in organic waste disposal from 2014 levels by 2020 and a 75% reduction by 2025—essentially requiring the diversion of up to 27 million tons of organic waste—to reduce GHG emissions. SB 1383 also requires that not less than 20% of edible food that is currently disposed be recovered for human consumption by 2025.

Other State Actions

Senate Bill 97

SB 97 (2007) directed the Governor's Office of Planning and Research and CNRA to develop guidelines under CEQA for the mitigation of GHG emissions. CNRA adopted the CEQA Guidelines amendments in December 2009, which became effective in March 2010.

Under the amended CEQA Guidelines, a lead agency has the discretion to determine whether to use a quantitative or qualitative analysis or apply performance standards to determine the significance of GHG emissions resulting from a particular project (14 CCR 15064.4[a]). The CEQA Guidelines require a lead agency to consider the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4[b]). The CEQA Guidelines also allow a lead agency to consider feasible means of mitigating the significant effects of GHG emissions, including reductions in emissions through the implementation of project features or off-site measures (14 CCR 15126.4[c]). The adopted amendments do not establish a GHG emission threshold, instead allowing a lead agency to develop, adopt, and apply its own thresholds of significance or those developed by other agencies or experts. CNRA also acknowledged that a lead agency could consider compliance with regulations or requirements implementing AB 32 in determining the significance of a project's GHG emissions (CNRA 2009).

With respect to GHG emissions, CEQA Guidelines Section 15064.4(a), as subsequently amended in 2018, states that lead agencies "shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate" GHG emissions. The CEQA Guidelines now note that an agency "shall have discretion to determine, in the context of a particular project, whether to: (1) Quantify greenhouse gas emissions resulting from a project; and/or (2) Rely on a qualitative analysis or performance based standards" (14 CCR 15064.4[a]). Section 15064.4(b) states that the lead agency should consider the following when assessing the significance of impacts from GHG emissions on the environment: (1) the extent to which a project may increase or reduce GHG emissions as compared to the existing environmental setting; (2) whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and (3) the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4[b]).

Local

The following local/regional regulations pertaining to GHGs would apply to the Project.

Mojave Desert Air Quality Management District

The Project is within the Mojave Desert Air Basin portion of San Bernardino County, which is under the jurisdiction of the Mojave Desert Air Quality Management District (MDAQMD). The MDAQMD has adopted GHG emissions thresholds in its CEQA Guidelines, but has not adopted a comprehensive strategy for reducing GHG emissions. The MDAQMD threshold is 100,000 tons of CO_2e per year (MDAQMD 2020).

Southern California Association of Governments

As noted above, SB 375 requires metropolitan planning organizations to prepare and include an SCS in their RTP. The SCAG Regional Council adopted the 2012 RTP/SCS in April 2012 (SCAG 2012), the 2016–2040 RTP/SCS

(2016 RTP/SCS) was adopted in April 2016, and the 2020-2045 RTP/SCS (2020 RTP/SCS or Connect SoCal) was adopted in September 2020. Please see Section 4.13, Transportation, for a discussion of SCAG's Connect SoCal, the 2020–2045 RTP/SCS. The 2012, 2016, and 2020 RTP/SCSs establish a development pattern for the region that, when integrated with the transportation network and other policies and measures, would reduce GHG emissions from transportation (excluding goods movement). The RTP/SCSs link the goals of sustaining mobility with the goals of fostering economic development; enhancing the environment; reducing energy consumption; promoting transportation-friendly development patterns; and encouraging all residents affected by socioeconomic, geographic, and commercial limitations to be provided with fair access. The RTP/SCSs do not require that local general plans, specific plans, or zoning be consistent with it but provide incentives for consistency for governments and developers.

Town of Apple Valley General Plan

The Town of Apple Valley General Plan contains the following goals and policies applicable to GHGs and the Project (Town of Apple Valley 2009):

Air Quality Element

Goal: To preserve and enhance local and regional air quality.

Policy 1.E: The use of clean and/or renewable alternative energy sources for transportation, heating and cooling, and construction shall be encouraged by the Town.

Policy 1.F: The Town shall support, encourage, and facilitate the development of projects that enhance the use of alternative modes of transportation, including pedestrian-oriented retail and activity centers, dedicated bicycle paths and lanes, and community-wide multi-use trails.

Policy 1.G: Future residential, commercial, and industrial development and remodeling projects, shall strive to exceed Title 24 standards by 15% and/or achieve LEED certification or similar performance standards for buildings.

Policy 1.H: Residential, commercial, and industrial projects that reduce vehicle miles traveled (VMTs) by providing alternative transportation options, home office and live/work spaces, and/or promote employees living close to work are preferred.

Policy 1.I: The Town shall continue to reduce waste generation, enhance recycling or reuse programs, and expand grey water systems for landscape irrigation.

Policy 1.J: The Town shall promote the use of solar and alternative energies and give priority to projects that include the use of solar cells and other alternative energy sources in their designs.

Policy 1.K: The Town shall participate in regional GHG reduction planning efforts.

Energy and Mineral Resources Element

Goal**:** Assure the long-term availability and affordability of energy and mineral resources through conservative consumption, efficient use, and environmentally sensitive management practices.

Policy 1.A: The community and all economic sectors shall be urged to conserve energy, with particular focus on the inclusion of energy saving measures in transport systems, and in the planning and construction of urban uses.

Policy 1.B: Promote building design and construction that integrates alternative energy systems, including but not limited to solar, thermal, photovoltaics and other clean energy systems.

Policy 1.C: Proactively support state and federal legislation and regulations and long-term strategies that assure affordable and reliable production and delivery of electrical power to the community. The Town will encourage and facilitate the exploitation of local renewable resources by supporting public and private initiatives to develop and operate alternative systems of electricity generation, using wind, solar and other renewable energies.

Policy 1.D: The Town will encourage and facilitate the exploitation of local renewable resources by supporting public and private initiatives to develop and operate alternative systems of electricity generation, using wind, solar and other renewable energies.

Town of Apple Valley Climate Action Plan

As described previously, the Town adopted a CAP in July 2010, with the 2019 CAP Update adopted in 2021 as the most recent update. The 2019 CAP Update supports the Town's GHG emission reduction targets of 15% below 2005 levels by 2020, 40% below 2005 levels by 2030, and 80% below 2005 levels by 2050 and identifies measures to reduce municipal and community GHG emissions in the following categories: transportation, energy efficiency, renewable energy, and solid waste management (Town of Apple Valley 2021). The CAP was not subject to CEQA review and does not meet the requirements of Section 15183.5b of the State's CEQA guidelines.

4.6.3 Thresholds of Significance

The significance criteria used to evaluate the Project impacts to GHG/climate change are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to greenhouse gas emissions would occur if the Project would:

A. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.
B. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.
C. Result in cumulatively considerable impacts with regard to greenhouse gas emissions.

Global climate change is a cumulative impact; a project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of GHGs. There are currently no established thresholds for assessing whether the GHG emissions of a project, such as the proposed project, would be considered a cumulatively considerable contribution to global climate change; however, all reasonable efforts should be made to minimize a project's contribution to global climate change. In addition, while GHG impacts are recognized exclusively as cumulative impacts (CAPCOA 2008), GHG emissions impacts must also be evaluated on a project-level under CEQA.

With respect to GHG emissions, the CEQA Guidelines Section 15064.4(a) states that lead agencies "shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate" GHG emissions resulting from a project. The CEQA Guidelines note that an agency has the discretion to either quantify a project's GHG emissions or rely on a "qualitative analysis or performance-based standards" (14 CCR 15064.4[a]). A lead agency may use a "model or methodology" to estimate GHG emissions and has the discretion to select the model or methodology it considers "most appropriate to enable decision makers to intelligently take into account the project's incremental contribution to climate change" (14 CCR 15064.4[c]). The CEQA Guidelines provide that the lead agency should consider the following when determining the significance of impacts from GHG emissions on the environment (14 CCR 15064.4[b]):

The extent a project may increase or reduce GHG emissions as compared to the existing environmental setting.

1. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
2. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

In addition, the CEQA Guidelines specify that "[w]hen adopting or using thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence" (14 CCR 15064.7[c]).

Approach to Determining Significance

The Town has not adopted a numeric significance threshold for determining significant impacts associated with GHG emissions. Air districts typically act in an advisory capacity to local governments in establishing the framework for environmental review of air pollution impacts under CEQA. This may include recommendations regarding significance thresholds, analytical tools to estimate emissions and assess impacts, and mitigations for potentially significant impacts. Although air districts will also address some of these issues on a project-specific basis as responsible agencies, they may provide general guidance to local governments on these issues (SCAQMD 2008). While the Project is located within the jurisdiction of the MDAQMD, both MDAQMD and the South Coast Air Quality Management District (SCAQMD) recommended thresholds are discussed below. Because SCAQMD's thresholds are more stringent and are backed by substantial evidence from an expert agency, the SCAQMD's recommended thresholds are utilized for determining the potential significance of impacts for the Project, as discussed below.

On May 13, 2010 EPA finalized the GHG Tailoring Rule (75 FR 31514, June 3, 2010). The Tailoring Rule sets major source emissions thresholds that define when federal operating permits under Prevention Significant Deterioration (PSD) or Title V are required. The Tailoring Rule establishes a threshold of 100,000 tons per year of GHGs from new sources above which sources are considered major sources requiring a federal operating permit. As such, the MDAQMD has adopted a significance threshold for GHGs of 100,000 tons per year. More specifically, 100,000 tons per year of GHG emissions from a single facility constitutes major sources that require a federal operating permit.

SCAQMD, which oversees the adjacent South Coast Air Basin, has recommended more stringent numeric CEQA significance thresholds for GHG emissions for lead agencies to use in assessing GHG impacts of residential and commercial development projects; however, these thresholds were not adopted. The SCAQMD formed a GHG CEQA Significance Threshold Working Group to work with SCAQMD staff on developing GHG CEQA significance thresholds until statewide significance thresholds or guidelines are established. From December 2008 to September 2010,

the SCAQMD hosted working group meetings and revised the draft threshold proposal several times, although it did not officially provide these proposals in a subsequent document. The SCAQMD has continued to consider adoption of significance thresholds for residential and general land use development projects. The most recent proposal, issued in September 2010, uses the following tiered approach to evaluate potential GHG impacts from various uses (SCAQMD 2010):

Tier 1 Determine if CEQA categorical exemptions are applicable. If not, move to Tier 2.

Tier 2 Consider whether or not the proposed project is consistent with a locally adopted GHG reduction plan that has gone through public hearing and CEQA review, that has an approved inventory, includes monitoring, etc. If not, move to Tier 3.

Tier 3 Consider whether the project generates GHG emissions in excess of screening thresholds for individual land uses. The 10,000 MT CO2e per year threshold for industrial uses and stationary projects would be recommended for use by all lead agencies. Under option 1, separate screening thresholds are proposed for residential projects (3,500 MT CO2e per year), commercial projects (1,400 MT CO2e per year), and mixed-use projects (3,000 MT CO2e per year). Under option 2, a single numerical screening threshold of 3,000 MT CO2e per year would be used for all non-industrial projects. If the project generates emissions in excess of the applicable screening threshold, move to Tier 4.

Tier 4 Consider whether the project generates GHG emissions in excess of applicable performance standards for the project service population (population plus employment). The efficiency targets were established based on the goal of AB 32 to reduce statewide GHG emissions to 1990 levels by 2020. The 2020 efficiency targets are 4.8 MT CO2e per service population for project level analyses and 6.6 MT CO2e per service population for plan level analyses. If the project generates emissions in excess of the applicable efficiency targets, move to Tier 5.

Tier 5 Consider the implementation of CEQA mitigation (including the purchase of GHG offsets) to reduce the project efficiency target to Tier 4 levels.

Based on the supporting analysis outlined in SCAQMD's draft GHG guidance and meeting notes, this 3,000 MT CO_2e per year level would capture 90% of GHG emissions from new residential or commercial projects in the region (SCAQMD 2008). This type of market capture analysis captures a substantial fraction of the GHG emissions from future development to accommodate for future population and job growth and excludes small development projects that would contibute a relatively small fraction of the cumulative statewide GHG emissions.

While the Town has not adopted a numeric significance threshold, the 3,000 MT CO_2e per year threshold has been applied herein to evaluate the potential for the Project to result in a significant GHG emissions impact under CEQA because it is more stringent than the MDAQMD threshold and the SCAQMD is also an expert agency in the Southern California region. Further, the SCAQMD provides substantial evidence that the thresholds are consistent with policy goals and 2050 GHG emissions reduction targets set by the State. Specifically, the thresholds were set at levels that capture 90% of the GHG emissions- from the above-described uses, consistent with EO S-3-05 target of reducing GHGs to 80% below 1990 levels by 2050. Finally, the SCAQMD specifically recommended that the 3,000 MT CO_2e per year threshold be used by lead agencies for not only residential and commercial projects, but also industrial parks and warehouses as well (SCAQMD 2008).

Approach and Methodology

Emissions from construction and operation of the Project and existing land uses were estimated using the California Emissions Estimator Model (CalEEMod) Version 2022.1 (CAPCOA 2022). CalEEMod input parameters, including the Project land use type and size and construction schedule, were based on information provided by the Project Applicant, or default model assumptions if Project specifics were unavailable.

Construction

CalEEMod Version 2022.1 was used to estimate potential Project-generated GHG emissions during construction. Construction of the Project would result in GHG emissions primarily associated with use of off-road construction equipment, on-road hauling and vendor (material delivery) trucks, and worker vehicles. All details for construction criteria air pollutants discussed in Section 4.2.3, Thresholds of Significance (Methodology, Construction subsection) of Section 4.2, Air Quality, are also applicable for the estimation of construction-related GHG emissions. See Section 4.2.3 for a discussion of construction emissions calculation methodology and assumptions used in the GHG emissions analysis.

Operation

As with the air quality analysis, emissions from the operational phase of the Project were estimated primarily using CalEEMod Version 2022.1. An Operational year of 2026 was assumed consistent with completion of Project construction. Project operations would generate CO_2, CH_4, and N_2O emissions. Primary emissions sources would include:

- Area Sources (landscape and site maintenance activities)
- Energy Sources (combustion emissions associated with natural gas and electricity)
- Mobile Sources (on-road vehicles)
- Off-road Equipment
- Stationary Sources
- Solid Waste
- Water Supply, Treatment, and Distribution

Mobile Sources

All details for criteria air pollutants discussed in Section 4.2.3 (Methodology, Operations subsection) of Section 4.2 are also applicable for the estimation of operational-related GHG emissions. Regulatory measures related to mobile sources include AB 1493 (Pavley) and related federal standards. AB 1493 required that CARB establish GHG emission standards for automobiles, light-duty trucks, and other vehicles that are primarily used for noncommercial personal transportation in the state. In addition, the NHTSA and EPA have established corporate fuel economy standards and GHG emission standards, respectively, for automobiles and light-, medium-, and heavy-duty vehicles. Implementation of these standards and fleet turnover (replacement of older vehicles with newer ones) will gradually reduce emissions from the Project's motor vehicles. The effectiveness of fuel economy improvements was evaluated using the CalEEMod emission factors for motor vehicles in 2026 to the extent it was captured in CalEEMod 2022.1, which is based on EMFAC2021 v1.0.1.

Area Sources

Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the Project. The emissions associated with landscape maintenance equipment were calculated based on assumptions provided in CalEEMod.

Energy Sources

GHGs are emitted from buildings as a result of activities for which electricity and natural gas are typically used as energy sources. Combustion of any type of fuel emits CO_2 and other GHGs directly into the atmosphere; these emissions are considered direct emissions associated with a building; the building energy use emissions do not include street lighting.[2] GHGs are also emitted during the generation of electricity from fossil fuels; these emissions are considered to be indirect emissions. GHG emissions associated with the natural gas and electricity usage associated with the Project were calculated by CalEEMod using default parameters.

Water and Wastewater

Indirect GHG emissions result from the production of electricity used to convey, treat and distribute water and wastewater. The amount of electricity required to convey, treat and distribute water depends on the volume of water as well as the sources of the water. GHG emissions associated with Project water consumption were calculated using CalEEMod using default parameters.

Solid Waste

Industrial land uses will result in the generation and disposal of solid waste. A large percentage of this waste will be diverted from landfills by a variety of means, such as reducing the amount of waste generated, recycling, and/or composting. The remainder of the waste not diverted will be disposed of at a landfill. GHG emissions from landfills are associated with the anaerobic breakdown of material. GHG emissions associated with the disposal of solid waste associated with the Project were calculated by CalEEMod using default parameters.

Off-Road Equipment

It is common for industrial warehouse buildings to require cargo handling equipment to move empty containers and empty chassis to and from the various pieces of cargo handling equipment that receive and distribute containers. The most common type of cargo handling equipment is the yard truck, which is designed for moving cargo containers. Yard trucks are also known as yard goats, utility tractors (UTRs), hustlers, yard hostlers, and yard tractors. For this particular Project, based on the maximum square footage of building space permitted by the Project, on-site modeled operational equipment includes a total of 308 electric forklifts (forklifts and pallet jacks) and diesel-fueled three yard hostlers operating at 24 hours a day for 365 days of the year. See Appendix B-1 for detail calculations.

[2] The CalEEMod emissions inventory model does not include indirect emission related to street lighting. Indirect emissions related to street lighting are expected to be negligible and cannot be accurately quantified at this time as there is insufficient information as to the number and type of street lighting that would occur.

4.6.4 Impacts Analysis

Threshold A: Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Significant and Unavoidable. Construction of the Project would result in GHG emissions, which are primarily associated with use of off-road construction equipment, on-road trucks, and worker vehicles. Construction emissions associated with the Proposed Project are depicted in Table 4.6-4.

Table 4.6-4. Estimated Annual Construction GHG Emissions

Year	CO_2	CH_4	N_2O	R	CO_2e
	metric tons per year				
2024	250.60	0.01	0.00	0.03	251.85
2025	3,357.88	0.09	0.25	4.33	3,439.31
2026	108.63	<0.01	<0.01	0.13	109.95
Total for All Years of Construction	**3,717.13**	**0.10**	**0.26**	**4.48**	**3,801.12**
				Amortized Over 30-Years	*126.70*

Source: Appendix B.
Notes: GHG = greenhouse gas; CO2 = carbon dioxide; CH4 = methane; N2O = nitrous oxide; R = Refrigerants; CO2e = carbon dioxide equivalent.
Totals may not sum due to rounding.

As shown in Table 4.6-4, total estimated GHG emissions generated during construction of the Project are approximately 3,800 MT CO_2e. Estimated Project-generated construction emissions amortized over 30 years would be approximately 127 MT CO_2e per year.

Operation of the Project would generate GHG emissions from mobile sources (vehicular traffic), area sources (landscape maintenance equipment operation), energy use (natural gas combustion and utility generation of electricity consumed by the Project), generation of electricity associated with water supply, treatment, and distribution and wastewater treatment, solid waste disposal, and off-road equipment. The estimated operational GHG emissions are shown in Table 4.6-5. Detailed operational model outputs are presented in Appendix B.

Table 4.6-5. Estimated Annual Operational Greenhouse Gas Emissions - Unmitigated

Emission Source	CO_2	CH_4	N_2O	R	CO_2e
	metric tons per year				
Mobile	59,832	0.34	6.89	76.82	61,968.11
Area	28.22	<0.01	<0.01	–	28.32
Energy	13,717	0.92	0.88	–	13,766.79
Water	1,074.35	19.65	0.47	–	1,706.24
Waste	218.45	21.83	0.00	–	764.27
Off-Road Equipment	555.29	0.02	<0.01	–	557.20
Total	**75,425.43**	**42.77**	**7.45**	**76.82**	**78,791.64**
				Amortized Construction Emissions	*126.7*
				Operational Emissions plus Amortized Construction Emissions	**79,045.04**

Source: Appendix B.

Notes: CO2 = carbon dioxide; CH4 = methane; N2O = nitrous oxide; R=refrigerants; CO2e = carbon dioxide equivalent; GHG = greenhouse gas.
Values of "<0.01" indicate estimated emissions are less than 0.01 metric tons per year. Totals may not sum due to rounding.

As shown in Table 4.6-5, the Project would result in approximately 79,045 MT CO_2e per year, including amortized construction emissions, which would exceed the SCAQMD GHG threshold of 3,000 MT CO_2e per year. Therefore, the Project would generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, and this would represent a cumulatively potentially significant impact.

Mitigation measures are required to minimize operational-related GHG impacts. Implementation of MM-AQ-2 (identified in Section 4.2) includes the requirement for all off-road cargo handling equipment to be zero-emission, which would reduce the long-term GHG emissions. In addition, implementation of MM-GHG-1 and MM-GHG-2 would reduce GHG emissions associated with energy efficiency, solid waste disposal, and water conservation. Table 4.6-6 summarizes the mitigated annual operational emissions associated with the Project. Detailed operational model outputs are presented in Appendix B.

Table 4.6-6. Estimated Annual Operational Greenhouse Gas Emissions - Mitigated

Emission Source	CO_2	CH_4	N_2O	R	CO_2e
	metric tons per year				
Mobile	59,832	0.34	6.89	76.8	61,969
Area	28	0	0	—	28
Energy	13,016	0.88	0.08	—	13,063
Water	777	14.2	0.34	—	1,235
Waste	55	5.46	0	—	191
Off-Road Equipment	0	0	0	—	0
Total	**72,276**	**20.8**	**7.30**	**76.82**	**76,486**
				Amortized Construction Emissions	*126.7*
				Operational Emissions plus Amortized Construction Emissions	**76,613**

Source: Appendix B.
Notes: CO2 = carbon dioxide; CH4 = methane; N2O = nitrous oxide; R=refrigerants; CO2e = carbon dioxide equivalent; GHG = greenhouse gas.
Values of "—" mean that no emissions estimate is provided. Totals may not sum due to rounding. Includes implementation of MM-AQ-2 and MM-GHG-1 and MM-GHG-2.

As depicted in Table 4.6-6, the Project would still exceed the applied threshold of 3,000 MT CO_2e per year after mitigation. No feasible mitigation measures beyond those already identified exist that would reduce these emissions to levels that are less than significant—for example, the majority of operational emissions come from mobile emission sources (e.g., vehicle emissions). Therefore, even with the incorporation of mitigation, long-term impacts associated with a cumulatively considerable increase in GHG emissions would be significant and unavoidable.

Threshold B. Would the Project generate conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Significant and Unavoidable. As previously stated, pursuant to Section 15064.4(a) of the CEQA Guidelines, a lead agency may rely on qualitative analysis or performance-based standards to determine the significance of impacts from GHG emissions. As such, the Project's consistency with SB 32 (2017 Scoping Plan) and AB 1279 (2022 Scoping Plan), and with SCAG's RTP/SCS are discussed below.

Project Potential to Conflict with State Reduction Targets and CARB's Scoping Plan

As discussed in Section 4.6.2, Relevant Regulations, Plans, Policies, and Ordinances, the California State Legislature passed AB 32 to provide initial direction to limit California's GHG emissions to 1990 levels by 2020 and initiate the state's long-range climate objectives. Since the passage of AB 32, the State has adopted GHG emissions reduction targets for future years beyond the initial 2020 horizon year. CARB is required to develop the Scoping Plan, which provides the framework for actions to achieve the State's GHG emission targets. While the Scoping Plan is not directly applicable to specific projects, nor is it intended to be used as the sole basis for project-level evaluations, it is the official framework for the measures and regulations that will be implemented to reduce California's GHG emissions in alignment with the adopted targets. Therefore, a project would be found to not conflict with the statutes if it would meet the Scoping Plan policies and would not impede attainment of the goals therein.

For the Project, the relevant GHG emissions reduction targets include those established by SB 32 and AB 1279, which require GHG emissions be reduced to 40% below 1990 levels by 2030, and 85% below 1990 levels by 2045, respectively. In addition, AB 1279 requires the state achieve net zero GHG emissions by no later than 2045 and achieve and maintain net negative GHG emissions thereafter. CARB's 2017 Scoping Plan update was the first to address the state's strategy for achieving the 2030 GHG reduction target set forth in SB 32 (CARB 2017a), and the most recent CARB 2022 Scoping Plan update outlines the state's plan to reduce emissions and achieve carbon neutrality by 2045 in alignment with AB 1279 and assesses progress toward the 2030 SB 32 target (CARB 2022b). As such, given that SB 32 and AB 1279 are the relevant GHG emission targets, the 2017 and 2022 Scoping Plan updates that outline the strategy to achieve those targets, are the most applicable to the Project.

The 2017 Scoping Plan included measures to promote renewable energy and energy efficiency (including the mandates of SB 350), increase stringency of the LCFS, measures identified in the Mobile Source and Freight Strategies, measures identified in the proposed Short-Lived Climate Pollutant Plan, and increase stringency of SB 375 targets. The 2022 Scoping Plan builds upon and accelerates programs currently in place, including moving to zero-emission transportation; phasing out use of fossil gas use for heating homes and buildings; reducing chemical and refrigerants with high GWP; providing communities with sustainable options for walking, biking, and public transit; and displacement of fossil-fuel fired electrical generation through use of renewable energy alternatives (e.g., solar arrays and wind turbines) (CARB 2022b). Many of the measures and programs included in the Scoping Plan would result in the reduction of Project-related GHG emissions with no action required at the project-level, including GHG emission reductions through increased energy efficiency and renewable energy production (SB 350), reduction in carbon intensity of transportation fuels (LCFS), and the accelerated efficiency and electrification of the statewide vehicle fleet (Mobile Source Strategy).

Table 4.6-7 summarizes the Project's potential to conflict with the applicable *2017 Scoping Plan*.

Table 4.6-7. Project Potential to Conflict with 2017 Scoping Plan

Action	Responsible Parties	Potential to Conflict
Implement SB 350 by 2030		
Increase the Renewables Portfolio Standard to 50% of retail sales by 2030 and ensure grid reliability.	California Public Utilities Commission (CPUC), California Energy Commission (CEC), California Air Resources Board (CARB)	*No conflict*. The Project would use energy from Southern California Edison (SCE). SCE has committed to diversify its portfolio of energy sources by increasing energy from wind and solar sources. The Project would not interfere with or obstruct SCE energy source diversification efforts.
Establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas end uses by 2030.		*No conflict.* The project would not inhibit CARB, CEC, or CPUC from establishing statewide targets for energy efficiency savings and demand reductions. The project would comply with all established regulations to meet energy efficiency savings and demand reduction targets, including but not limited to the 2002 Title 24 Energy Code (Title 24, Part 6) standards and CALGreen Code (Title 24, Part 11).
Reduce GHG emissions in the electricity sector through the implementation of the above measures and other actions as modeled in Integrated Resource Planning (IRP) to meet GHG emissions reductions planning targets in the IRP process. Load-serving entities and publicly- owned utilities meet GHG emissions reductions planning targets through a combination of measures as described in IRPs.		*No conflict.* The Project would be constructed in compliance with the current California Building Code requirements at the time of construction. Specifically, new buildings must achieve compliance with the applicable 2022 Building and Energy Efficiency Standards and the 2022 California Green Building Standards requirements. In addition, Mitigation Measure (MM) GHG-1 specifies that the Project would commit to on-site solar generation to meet the Prescriptive Requirements for Photovoltaic Systems (Title 24, Part 6, Section 9.2) at a minimum, as well as install Energy Star–rated heating, cooling, lighting, and appliances.
Implement Mobile Source Strategy (Cleaner Technology and Fuels)		
At least 1.5 million zero emission and plug-in hybrid light-duty EVs by 2025.	CARB, California State Transportation Agency (CalSTA), Strategic Growth Council (SGC),	*No conflict*. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB zero emission and plug-in hybrid light-duty EV 2025 targets. As this is a CARB enforced standard, vehicles that access the Project are required to comply with the standards and will therefore comply with the strategy.

Table 4.6-7. Project Potential to Conflict with 2017 Scoping Plan

Action	Responsible Parties	Potential to Conflict
At least 4.2 million zero emission and plug-in hybrid light-duty EVs by 2030.	California Department of Transportation (Caltrans), CEC, OPR, Local Agencies	*No conflict*. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB zero emission and plug-in hybrid light-duty EV 2030 targets. As this is a CARB enforced standard, vehicles that access the Project are required to comply with the standards and will therefore comply with the strategy.
Further increase GHG stringency on all light-duty vehicles beyond existing Advanced Clean cars regulations.		*No conflict*. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB efforts to further increase GHG stringency on all light-duty vehicles beyond existing Advanced Clean cars regulations. As this is a CARB enforced standard, vehicles that access the Project are required to comply with the standards and will therefore comply with the strategy.
Medium- and Heavy-Duty GHG Phase 2.		*No conflict*. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB efforts to implement Medium- and Heavy-Duty GHG Phase 2. As this is a CARB enforced standard, vehicles that access the Project are required to comply with the standards and will therefore comply with the strategy.
Last Mile Delivery: New regulation that would result in the use of low NO_X or cleaner engines and the deployment of increasing numbers of zero-emission trucks primarily for class 3-7 last mile delivery trucks in California. This measure assumes ZEVs comprise 2.5% of new Class 3–7 truck sales in local fleets starting in 2020, increasing to 10% in 2025 and remaining flat through 2030.		*No conflict*. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB cleaner last mile delivery trucks in California. As this is a CARB enforced standard, vehicles that access the Project are required to comply with the standards and will therefore comply with the strategy.

Table 4.6-7. Project Potential to Conflict with 2017 Scoping Plan

Action	Responsible Parties	Potential to Conflict
Harmonize project performance with emissions reductions and increase competitiveness of transit and active transportation modes (e.g., via guideline documents, funding programs, project selection, etc.).	CalSTA, SGC, OPR, CARB, Governor's Office of Business and Economic Development (GO-Biz), California Infrastructure and Economic Development Bank (IBank), Department of Finance (DOF), California Transportation Commission (CTC), Caltrans	*No conflict*. The Project would not obstruct or interfere with agency efforts to harmonize transportation facility project performance with emissions reductions and increase competitiveness of transit and active transportation modes.
By 2019, develop pricing policies to support low-GHG transportation (e.g. low-emission vehicle zones for heavy duty, road user, parking pricing, transit discounts).	CalSTA, Caltrans, CTC, OPR, SGC, CARB	*No conflict*. The Project would not obstruct or interfere with agency efforts to develop pricing policies to support low-GHG transportation.
Implement California Sustainable Freight Action Plan		
Improve freight system efficiency.	CalSTA, CalEPA, CNRA, CARB, Caltrans, CEC, GO-Biz	*No conflict*. This measure would apply to all trucks accessing the Project sites, including existing trucks or new trucks that are part of the statewide goods movement sector. The Project would not obstruct or interfere with agency efforts to improve freight system efficiency.

Table 4.6-7. Project Potential to Conflict with 2017 Scoping Plan

Action	Responsible Parties	Potential to Conflict
Adopt a Low Carbon Fuel Standard with a Carbon Intensity reduction of 18%.	CARB	*No conflict*. This measure, which was increased to 20% reduction in carbon intensity by 2030, applies to all fuel purchased and used by the Project in the state. The Project would not obstruct or interfere with agency efforts to implement a Low Carbon Fuel Standard.
By 2018, develop Integrated Natural and Working Lands Implementation Plan to secure California's land base as a net carbon sink		
Utilize wood and agricultural products to increase the amount of carbon stored in the natural and built environments		*No conflict*. To the extent appropriate for the proposed industrial buildings, wood products would be used in construction, including for the roof structure.

Source: CARB 2017a.

Table 4.6-8 highlights the measures from the 2022 Scoping Plan that are relevant to the Project.

Table 4.6-8. Project Potential to Conflict with 2022 Scoping Plan

Sector	Action	Potential to Conflict
GHG Emissions Reductions Relative to the SB 32 Target	40% below 1990 levels by 2030	*Potential conflict.* While the Senate Bill (SB) 32 greenhouse gas (GHG) emissions reduction target is not an action that is analyzed independently, it is included in Table 2-1 of the 2022 Scoping Plan for reference. There is no statewide project-level threshold that the Project would conflict with; however, the Project would exceed South Coast Air Quality Management District (SCAQMD) thresholds and has the potential to conflict with agency efforts to meet the SB 32 reduction goal.
Smart Growth / VMT	VMT per capita reduced 25% below 2019 levels by 2030, and 30% below 2019 levels by 2045	*No conflict*. The Project would not obstruct or interfere with agency efforts to meet this regional VMT reduction goal, including through implementation of SB 375. As detailed below, the Project would not conflict with the goals of the SCAG 2020–2045 RTP/SCS plan, which is the regional growth management strategy that targets per capita GHG reduction from passenger vehicles and light trucks in the Southern California Region pursuant to SB 375.
Light-duty Vehicle (LDV) Zero Emission Vehicles (ZEVs)	100% of LDV sales are ZEV by 2035	*No conflict*. As this action pertains to LDV sales within California, the Project would not obstruct or interfere with its implementation.

Table 4.6-8. Project Potential to Conflict with 2022 Scoping Plan

Sector	Action	Potential to Conflict
Truck ZEVs	100% of medium-duty vehicle (MDV)/ heavy-duty vehicle (HDV) sales are ZEV by 2040	*No conflict*. As this action pertains to MDV and HDV sales within California, the Project would not obstruct or interfere with its implementation.
Electricity Generation	Sector GHG target of 38 million metric tons of carbon dioxide equivalent ($MMTCO_2e$) in 2030 and 30 $MMTCO_2e$ in 2035 Retail sales load coverage[1] 20 gigawatts (GW) of offshore wind by 2045 Meet increased demand for electrification without new fossil gas-fired resources	*No conflict*. As this Action pertains to the statewide procurement of renewably generated electricity, the Project would not obstruct or interfere with its implementation. However, the Project would support increased usage of renewable electricity through the installation of on-site solar panels to meet the Prescriptive Requirements for Photovoltaic Systems (Title 24, Part 6, Section 9.2) at a minimum.
New Residential and Commercial Buildings	All electric appliances beginning 2026 (residential) and 2029 (commercial), contributing to 6 million heat pumps installed statewide by 2030	*No conflict*. The Project would not obstruct or interfere with agency efforts to meet the all-electric appliance and heat pump goals.
Construction Equipment	25% of energy demand electrified by 2030 and 75% electrified by 2045	*No conflict*. As this Action pertains to the electrification of off-road equipment across California, the Project would not obstruct or interfere with its implementation. However, the Project would support the Action through the requirement that all cargo handling and landscaping equipment to be zero-emission (MM-AQ-2).
Low Carbon Fuels for Transportation	Biomass supply is used to produce conventional and advanced biofuels, as well as hydrogen	*No conflict*. The Project would not obstruct or interfere with agency efforts to increase the provision of low carbon fuels for transportation.
Low Carbon Fuels for Buildings and Industry	In 2030s biomethane blended in pipeline Renewable hydrogen blended in fossil gas pipeline at 7% energy (~20% by volume), ramping up between 2030 and 2040 In 2030s, dedicated hydrogen pipelines constructed to serve certain industrial clusters	*No conflict*. The Project would not obstruct or interfere with agency efforts to increase the provision of low carbon fuels for use in buildings and industry.
High GWP Potential Emissions	Low GWP refrigerants introduced as building electrification increases, mitigating HFC emissions	*No conflict*. The Project would not obstruct or interfere with agency efforts to introduce low GWP refrigerants.

Source: CARB 2022b.
Notes:
[1] As noted in Table 2-1 of the 2022 Scoping Plan, SB 100 speaks only to retail sales and state agency procurement of electricity (i.e., wholesale or non-retail sales and losses from storage and transmission and distribution lines are not subject to the law).

Based on the analysis in Table 4.6-7 and Table 4.6-8, the Project would be consistent with the applicable strategies and measures in the 2017 Scoping Plan and 2022 Scoping Plan, except for achieving the GHG reduction targets set in SB 32; because the Project would exceed the 3,000 MT CO_2e threshold, it could prohibit the state from achieving its GHG reduction goals.

The 2045 carbon neutrality goal required CARB to expand proposed actions in the 2022 Scoping Plan to include those that capture and store carbon in addition to those that reduce only anthropogenic sources of GHG emissions. However, the 2022 Scoping Plan emphasizes that reliance on carbon sequestration in the state's natural and working lands will not be sufficient to address residual GHG emissions, and achieving carbon neutrality will require research, development, and deployment of additional methods to capture atmospheric GHG emissions (e.g., mechanical direct air capture). Given that the specific path to neutrality will require development of technologies and programs that are not currently known or available, the Project's role in supporting the statewide goal would be speculative and cannot be wholly identified at this time.

Overall, the Project would comply will all regulations adopted in furtherance of the Scoping Plan to the extent applicable and required by law. As demonstrated above, the Project would potentially conflict the 2022 Scoping Plan update and with the state's ability to achieve the 2030 and 2045 GHG reduction and carbon neutrality goals.

Potential to Conflict with the Town Climate Action Plan

As previously stated, the 2019 CAP Update is not an adopted plan; however, it presents a number of strategies that will make it possible for the Town to meet the recommended GHG emissions targets that are consistent with the reduction targets of the state. As described in the 2019 CAP Update:

> Section IV.ii provide, in broad terms, policies that may contribute to GHG reductions. These measures are intended as a menu for existing and future development, any combination of which can be implemented to reach reduction targets on a project-by-project basis.

The Project's consistency with applicable 2019 CAP Update strategies is therefore based on the overarching categories described within the 2019 CAP Update, rather than the entire menu of policies. Without mitigation, the Project would not be consistent with many of these strategies. However, with implementation of mitigation, specifically MM-AQ-2, MM-GHG-1 and MM-GHG-2, the Project would be consistent with all strategies and would support the Town's CAP.

- **Transportation Measures.** The Project would require measures that would support reducing GHGs through the transportation sector. Specifically, the requirement for all cargo handling and landscaping equipment to be zero-emission would not specifically be in the transportation sector, this aspect of MM-AQ-2 would also substantially reduce GHG emissions.
- **Energy Efficiency Measures.** The Project would require measures that would support energy efficiency, consistent with Title 24 requirements for increased usage of renewable electricity through the installation of on-site solar panels to meet the Prescriptive Requirements for Photovoltaic Systems (Title 24, Part 6, Section 9.2) at a minimum. Further, MM-GHG1 would require the Project to demonstrate U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) Silver certification or equivalent, installation of Energy Star-rated heating, cooling, lighting, and appliances. In addition, although not specifically focused on energy efficiency, MM-GHG-2 would require the implementation of a Water Conservation Strategy and demonstrate a minimum 20% reduction in indoor and outdoor water usage when compared to baseline water demand. As

water conveyance and treatment generates GHGs indirectly due to the electricity involved in the process, reducing water demand would also reduce the amount of electricity required.

- **Renewable Energy Measures.** The Project would be consistent with Title 24 requirements for increased usage of renewable electricity through the installation of on-site solar panels to meet the Prescriptive Requirements for Photovoltaic Systems (Title 24, Part 6, Section 9.2) at a minimum.
- **Solid Waste Management Measures.** The Project would be consistent with the Solid Waste Management Measures of the 2019 CAP Update due to the Project's compliance with relevant State and Local regulations (SB 1383).

Potential to Conflict with SCAG's RTP/SCS

The SCAG 2020–2045 RTP/SCS is a regional growth management strategy that targets per capita GHG reduction from passenger vehicles and light trucks in the Southern California Region pursuant to SB 375. In addition to demonstrating the Region's ability to attain the GHG emission-reduction targets set forth by CARB, the 2020-2045 RTP/SCS outlines a series of actions and strategies for integrating the transportation network with an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands. Thus, successful implementation of the 2020-2045 RTP/SCS would result in more complete communities with a variety of transportation and housing choices, while reducing automobile use.

The following strategies are intended to be supportive of implementing the 2020-2045 RTP/SCS and reducing GHGs: focus growth near destinations and mobility options; promote diverse housing choices; leverage technology innovations; support implementation of sustainability policies; and promote a green region (SCAG 2020). The strategies that pertain to residential development and SCAG's support of local jurisdiction sustainability efforts would not apply to the Project.

- **Focus Growth Near Destinations and Mobility Options.** The Project's compliance with this strategy of the 2020-2045 RTP/SCS is supported because the Project would introduce new jobs proximate to existing housing, which would reducing vehicle miles traveled. The Project's proximity to existing freeways also helps to reduce vehicle miles traveled and local truck traffic congestion.
- **Leverage Technology Innovations.** One of the technology innovations identified in the 2020-2045 RTP/SCS that would apply to the Project is the promotion and support of low emission technologies for transportation, such as alternative fueled vehicles to reduce per capita GHG emissions. For this particular Project, MM-AQ-2 would require that all cargo handling and landscaping equipment to be zero-emission or near-zero-emission.
- **Promote a Green Region.** The third applicable strategy within the 2020-2045 RTP/SCS, for individual developments, such as the Project, involves promoting a green region through efforts such as supporting local policies for renewable energy production and promoting more resource efficient development (e.g., reducing energy consumption) to reduce GHG emissions. A key means that the Project would use to support this strategy is by including rooftop solar and energy star appliances into the Project design as a part of MM-GHG-1.

Based on the analysis above, with mitigation, the Project would be consistent with the SCAG 2020-2045 RTP/SCS.

Summary

The Project would potentially conflict with the CARB Scoping Plan since the Project exceeds SCAQMD's 3,000 MT CO_2e threshold and would therefore potentially conflict with the GHG emission reduction goals outlined in AB 32,

SB 32, and AB 1279. However, the Project would be consistent with the SCAG 2020–2045 RTP/SCS, with implementation of MM-AQ-2, MM-GHG-1, and MM-GHG-2.

Threshold C: Would the Project result in cumulatively considerable impacts with regard to greenhouse gas emissions?

Significant and Unavoidable Impact. As previously discussed in Section 4.6.1, Existing Conditions, GHG emissions impacts are inherently cumulative in nature. As shown in Table 4.6-6, the Project would result in GHG emissions in exceedance of the SCAQMD significance threshold, even after the implementation of all feasible mitigation. Therefore, Project GHG emissions would be cumulatively considerable and significant.

4.6.5 Mitigation Measures and Level of Significance After Mitigation

Threshold A: Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

The Project would result in potentially significant impacts with regard to generating GHG emissions. Implementation of MM-AQ-2 would reduce operational off-road equipment and on-road vehicle GHG emissions, to the extent feasible. MM-GHG-1 and MM-GHG-2 would also reduce GHG emissions associated with energy, solid waste, and water conservation; however, impacts would remain **significant and unavoidable**.

MM-GHG-1 The Project Applicant shall implement the following measure in order to reduce operational energy source greenhouse gas (GHG) emissions to the extent feasible:

- Design the Project to meet U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) Silver certification or otherwise design the Project to reach equivalent reductions in GHG emissions. Prior to the issue of building permits, documentation demonstrating that the Project has been designed to achieve LEED Silver certification or has otherwise been designed to result in equivalent GHG emission reductions will be submited to the Town's Planning Department. Install Energy Star–rated heating, cooling, lighting, and appliances.
- Provide information on energy efficiency, energy-efficient lighting and lighting control systems, energy management, and existing energy incentive programs to future tenants of the Project.
- Structures shall be equipped with outdoor electric outlets in the front and rear of the structures to facilitate use of electrical lawn and garden equipment.

MM-GHG-2 To reduce water demands and associated energy use, subsequent development proposals within the Project site would be required to implement a Water Conservation Strategy and demonstrate a minimum 20% reduction in indoor and outdoor water usage when compared to baseline water demand (total expected water demand without implementation of the Water Conservation Strategy). The Town shall approve the Water Conservation Strategy prior to the issuance of building permits for the Project. Included in the Water Conservation Strategy, the Project Applicant shall provide building plans that include the following water conservation measures:

- Install low-water use appliances and fixtures

- Restrict the use of water for cleaning outdoor surfaces and prohibit systems that apply water to non-vegetated surfaces
- Implement water-sensitive urban design practices in new construction
- Install rainwater collection systems where feasible

Threshold B. Would the Project generate conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The Project would conflict with applicable plans, policies, or regulations related to GHGs. Implementation of **MM-AQ-2**, **MM-GHG-1,** and **MM-GHG-2** would reduce the Project's impacts; however, impacts would remain **significant and unavoidable**.

Threshold C: Would the Project result in cumulatively considerable impacts with regard to greenhouse gas emissions?

The Project would result in potentially significant impacts with regard to GHG emissions. Implementation of **MM-AQ-2**, **MM-GHG-1**, and **MM-GHG-2** would reduce the Project's GHG impacts; however, impacts would remain **significant and unavoidable.**

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4.7 Hazards and Hazardous Materials

This section describes the existing hazards and hazardous materials conditions of the Inland Empire North Logistics Center Project (Project) site and vicinity, identifies associated regulatory requirements, and evaluates potential impacts related to the implementation of the Project.

In addition to the documents incorporated by reference (see Section 2.7, Documents Incorporated by Reference, of this environmental impact report [EIR]), the following analysis is based, in part, on the following sources:

- Phase I Environmental Site Assessment Report, Highway 15 & Falchion Road, Town of Apple Valley, California, prepared by Jeffrey Tartaglino, in January 2023 (Appendix G)

4.7.1 Existing Conditions

Project Site Conditions

The approximately 178-acre Project site consists of vacant, undeveloped land as well as disturbed land and unpaved roads. Approximately 20 acres at the northeast portion of the Project site have historically been used for stockpiling of soil and similar type materials from off-site mining activities; a metal storage structure associated with the stockpiling activities is located on the Project site and would be removed prior to construction of the Project. The Project site is relatively flat land characterized by desert landscape. The Project site is bordered to the north by various unpaved roads and vacant land, to the east by aggregate mining operations, to the south by various paved and unpaved roads, and to the west be Interstate (I) 15.

Ground surface cover consists of moderate native brush and shrub growth, with occasional Joshua trees located throughout the site. Surface elevation within the Project site is relatively flat, ranging between approximately 2,888 and 3,030 feet above mean sea level.

The Project site is underlain by older alluvial sediments except where artificial fill was encountered or was observed on the surface. Near-surface soils generally consisted of poorly graded sands, poorly graded sands with silt, and silty sands (Appendix F). On-site exploratory drilling did not encounter groundwater at the site. Review of historical literature indicates groundwater depths were deeper than 200 feet below ground surface in 1992 (Appendix E). In addition, the Town's General Plan indicates that groundwater beneath the site and in the immediate area has historically been greater than 200 feet beneath the ground surface.

Phase I Environmental Site Assessment Findings

A Phase I Environmental Site Assessment (ESA) was conducted to identify potential or existing environmental contamination on the site. During the preparation of the Phase I ESA, Jeffrey Tartaglino searched both state and federal hazardous materials as a result of existing or past uses. A regulatory database review for the Project site is included as Section 5 of the Phase I ESA (Appendix G). In addition to the database review, Jeffrey Tartaglino contacted several local and regional agencies involved in regulating and keeping records of hazardous materials for any information connected to the Project site, including the Town of Apple Valley (Town) Building and Safety Division, Town of Apple Valley Planning Division, County of San Bernardino Planning Division, County of San Bernardino Assessor Division, EDR Radius Map Report, Sanborne Fire Insurance Map database, Aerial Photos, City Directory, and the Historical Topo Map Report (Appendix G).

Project Site

The Project site was not identified on government databases pertaining to the storage and disposal of petroleum products and hazardous materials/hazardous waste. Based on a review of historical and present records, a site reconnaissance, the Phase I ESA determined that no evidence for designating the site as a historical recognized environmental condition, controlled recognized environmental condition, recognized environmental condition, or vapor encroachment condition from review of historical documents and present site conditions was found (Appendix G).

Surrounding Areas

The Phase I ESA did not identify any environmental concerns within current or past adjacent sites (Appendix G). Land uses surrounding the Project site primarily consist of vacant land. Specific land uses located in the immediate vicinity of the Project site include the following:

- **North:** Various unpaved roads and vacant land
- **East:** Aggregate mining operations
- **South:** Falchion Road, Apple Valley Road, various other unpaved roads, and vacant land
- **West:** I-15 and vacant land

4.7.2 Relevant Regulations, Plans, Policies, and Ordinances

Federal

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as "Superfund," was enacted by Congress on December 11, 1980. This law provides broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. CERCLA established requirements concerning closed and abandoned hazardous waste sites, provided for liability of persons responsible for releases of hazardous waste at these sites, and established a trust fund to provide for cleanup when no responsible party could be identified. CERCLA also enabled a revision of the National Contingency Plan. The National Contingency Plan provides the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants. The National Contingency Plan also established the National Priorities List, which is a list of contaminated sites warranting further investigation by the U.S. Environmental Protection Agency (EPA). The Superfund Amendments and Reauthorization Act amended CERCLA on October 17, 1986.

The Federal Toxic Substances Control Act of 1976 and Resource Conservation and Recovery Act of 1976

The Federal Toxic Substances Control Act of 1976 and Resource Conservation and Recovery Act (RCRA) established a program administered by the EPA for the regulation of the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA was amended in 1984 by the Hazardous and Solid Waste Act, which affirmed and extended the "cradle-to-grave" system of regulating hazardous wastes. The Hazardous and Solid Waste Act specifically prohibited the use of certain techniques for the disposal of some hazardous wastes.

National Pollutant Discharge Elimination System Permit Program

The National Pollution Discharge Elimination System (NPDES) permit program was established in the Clean Water Act to regulate municipal and industrial discharges to surface waters of the United States. Discharge from any point source is unlawful unless the discharge is in compliance with an NPDES permit. Federal NPDES permit regulations have been established for broad categories of discharges, including point-source municipal waste discharges and nonpoint-source stormwater runoff. NPDES permits generally identify effluent and receiving water limits on allowable concentrations and/or mass emissions of pollutants contained in the discharge; prohibitions on discharges not specifically allowed under the permit; and provisions that describe required actions by the discharger, including industrial pretreatment, pollution prevention, self-monitoring, and other activities.

State

Cortese List/Government Code 65962.5

California Government Code Section 65962.5 requires that information regarding environmental impacts of hazardous substances and wastes be maintained and provided at least annually to the Secretary for Environmental Protection. Commonly referred to as the Cortese List, this information must include the following: sites impacted by hazardous wastes, public drinking water wells that contain detectable levels of contamination, underground storage tanks with unauthorized releases, solid waste disposal facilities from which there is migration of hazardous wastes, and all cease and desist and cleanup and abatement orders. This information is maintained by various agencies, including the Department of Toxic Substances Control, State Department of Health Services, State Water Resources Control Board, and local Certified Unified Program Agencies (CUPAs). As each of the regulatory agencies typically now maintains these records in an electronic format, those requesting a Cortese List for a particular site are directed to the individual regulatory agencies. Typically, records searches are conducted via a regulatory database search company, such as the records search from EDR included in the Phase I ESA for the Project. Database search companies usually conduct searches in accordance with ASTM Standard of Practice E1527-13 Standard Practice for ESAs. The list of databases that are searched during this process is more comprehensive than the Cortese List. As such, the database search conducted for the Project includes the Cortese List but is not limited to this list.

California Hazardous Waste Control Act, Title 22 of the California Code of Regulations and Hazardous Waste Control Law, Chapter 6.5

The Department of Toxic Substances Control is responsible for the enforcement of the Hazardous Waste Control Act (California Health and Safety Code, Section 25100 et seq.), which creates the framework under which hazardous wastes are managed in California. The law provides for the development of a state hazardous waste program that administers and implements the provisions of the federal RCRA cradle-to-grave waste management system in California. It also provides for the designation of California-only hazardous waste and development of standards that are equal to or in some cases more stringent than federal requirements. The Hazardous Waste Control Act lists 791 chemicals and approximately 300 common materials that may be hazardous; establishes criteria for identifying, packaging, and labeling hazardous wastes; prescribes management controls; establishes permit requirements for hazardous waste treatment, storage, disposal, and transportation; and identifies some wastes that cannot be disposed of in landfills.

California Health and Safety Code

In California, the handling and storage of hazardous materials are regulated by Division 20, Chapter 6.95 of the California Health and Safety Code. Under Sections 25500–25543.3, facilities handling hazardous materials are required to prepare a hazardous materials business plan (HMBP), which contains basic information on the location, type, quantity, and health risks of hazardous materials stored, used, or disposed of in the state.

Chapter 6.95 of the Health and Safety Code establishes minimum statewide standards for HMBPs. Each business shall prepare a HMBP if that business uses, handles, stores a hazardous material (including hazardous waste), or an extremely hazardous material in disclosable quantities greater than or equal to the following:

- 500 pounds of a solid substance
- 55 gallons of a liquid
- 200 cubic feet of compressed gas
- a hazardous compressed gas in any amount (highly toxic with a threshold limit value of 10 parts per million or less)
- extremely hazardous substances in threshold-planning quantities

In addition, in the event that a facility stores quantities of specific acutely hazardous materials above the thresholds set forth by the California Health and Safety Code, facilities are also required to prepare a risk management plan and an accidental release plan. These plans provide information on the potential impact zone of a worst-case release and require plans and programs designed to minimize the probability of a release and to mitigate potential impacts. Based on the Project land uses (i.e., industrial), an HMBP may be required; however, it is unlikely that a risk management plan and accidental release plan would be required, due to a probable lack of acutely hazardous materials. The SBCFD Hazardous Materials Division would make a final determination regarding the appropriate plan(s) to be completed.

Occupational Safety and Health Act

The California Occupational Safety and Health Administration (Cal/OSHA) is the primary agency responsible for worker safety in the handling and use of chemicals in the workplace. Cal/OSHA standards are generally more stringent than federal regulations. The employer is required to monitor worker exposure to listed hazardous substances and notify workers of exposure (8 CCR 337–340). The regulations specify requirements for employee training, availability of safety equipment, accident prevention programs, and hazardous substance exposure warnings.

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

The Unified Hazardous Waste and Hazardous Materials Management Regulatory Program was created in 1993 by Senate Bill 1082 to consolidate, coordinate, and make consistent the administrative requirements, permits, inspections, and enforcement activities of environmental and emergency management programs. The program is implemented at the local government level by CUPAs. In the Town of Apple Valley, the SBCFD is the CUPA. The program consolidates, coordinates, and makes consistent the following hazardous materials and hazardous waste programs (program elements):

- Hazardous waste generation (including on-site treatment under Tiered Permitting)
- Aboveground petroleum storage tanks (only the spill prevention, control, and countermeasure plan)

- Underground storage tanks
- Hazardous material release response plans and inventories
- California Accidental Release Prevention Program
- Uniform Fire Code HMBPs and inventories

Local

Town of Apple Valley General Plan

The Hazardous and Toxic Materials Element of the General Plan identifies, establishes, and sets forth policies to address hazards within the municipality. Goals or policies related to hazards and hazardous materials in the General Plan (Town of Apple Valley 2009) include the following:

Goal: Ensure that the environment and all residents, workers, and visitors are protected from exposure to hazardous materials and wastes.

Policy 1.A: The Town shall cooperate with regulators and encourage the enforcement of laws that require all users, producers, and transporters of hazardous materials and wastes to clearly identify such materials, and notify the appropriate county, state and/or federal agencies as required by law.

Policy 1.B: The County Sheriff's Department shall work with the Town Engineer, Caltrans, and California Highway Patrol, to regulate the transport of hazardous materials along local roadways, state highways and routes, and interstates in the Town or the vicinity.

Policy 1.D: The Town shall require all business that use, store, or produce hazardous material to comply with the County's Business Plan.

Program 1.D.1: As part of the development approval process, new businesses handling hazardous materials shall be required to submit a Business Plan for handing, storing, transporting, and disposing of hazardous materials and wastes.

Policy 1.E: The Town shall maintain documentation of known hazards to public health and safety and shall make this information available to government officials and organizations, emergency response personnel, and the general public.

Policy 1.F: The Town shall thoroughly evaluate development proposals for lands directly adjacent to sites known to be contaminated with hazardous or toxic materials, or sites that use or contain potentially hazardous or toxic materials.

Policy 1.G: Require and facilitate an efficient cleanup of contaminated sites identified within the Town of Apple Valley.

Program 1.G.1: Coordinate with responsible county, state, and federal agencies to initiate cleanup procedures, and monitor the status of cleanup efforts.

Policy 1.H: Designate appropriately managed access routes to facilitate the transport of hazardous and toxic materials.

Program 1.H.1: The Town shall maintain an Emergency Response Program, which provides for evacuation routes, and emergency services in the event of a hazardous spill or airborne release.

Policy 1.J: Land use designations that may involve the production, storage, transportation, handling, or disposal of hazardous materials will be located at a safe distance from land uses that may be adversely impacted by such activities.

Town of Apple Valley Emergency Operations Plan

The Town of Apple Valley has developed an Emergency Operations Plan (EOP) to incorporate and coordinate all the facilities and personnel of the Town into an efficient organization capable of responding to any emergency, including hazardous material incidents. The EOP is compliant with the California Standardized Emergency Management System (SEMS), which enables a multiple agency response to an incident, and the National Incident Response Management System (NIMS), which is intended to standardize agency response across federal, state and local jurisdictions.

Apple Valley Local Hazard Mitigation Plan

The Town updated its Local Hazard Mitigation Plan (LHMP) in 2017 in an effort to identify hazards, determine their likely impacts, and set mitigation goals and strategies, to expedite the recovery from a disaster to normalcy and increase the Town's resiliency to disasters. The LHMP focused on six hazards that were determined to be most significant to the Town: wildfire, flood, earthquake, erosion, flooding and climate change. The LHMP included a vulnerability assessment and identified mitigation goals and actions for each of the six hazards and those that apply to all hazards such as improving emergency services management capability through implementation of a public notification system and ensuring continual power supply at the Emergency Operations Center.

4.7.3 Thresholds of Significance

The significance criteria used to evaluate the Project impacts related to hazards and hazardous materials are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to hazards and hazardous material would occur if the project 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 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.

G. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

H. Result in a cumulatively considerable impact with regard to hazards and hazardous materials.

Thresholds C, D, E, F and G were analyzed in the Initial Study (Appendix A) and were not carried forward for further analysis in this EIR. See Chapter 5, Effects Found Not To Be Significant, for additional detail.

4.7.4 Impacts Analysis

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?

Less Than Significant Impact. During construction, a variety of hazardous substances and wastes would be stored, used, and generated on the Project site, including fuels for machinery and vehicles, new and used motor oils, cleaning solvents, paints, and storage containers. Accidental spills, leaks, fires, explosions, or pressure releases involving hazardous materials represent a potential threat to human health and the environment if not property treated. Provisions to properly manage hazardous substances and wastes during construction are typically included in construction specifications and are under the responsibility of the construction contractors. For example, construction contractors would be required to comply with Cal/OSHA regulations concerning the use of hazardous materials, including requirements for safety training, exposure warnings, availability of safety equipment, and preparation of emergency action/prevention plans. Adherence to the construction specifications and applicable regulations regarding hazardous materials and hazardous waste, including disposal, would ensure that Project construction would not create a significant hazard to the public or the environment during the construction phase of the Project.

Furthermore, adherence to all emergency response plan requirements set forth by the SBCFD would be required throughout the duration of Project construction. Therefore, based on compliance with existing regulation, short-term construction impacts associated with the routine transport, use, or disposal of hazardous materials would be less than significant.

Upon completion of Project construction, the Project would involve the operation and maintenance of the industrial/warehouse facilities. Operation of the Project would likely involve the use of industrial-grade chemicals and commercially available cleaning products, landscaping chemicals and fertilizers, and various other commercially available products during the day-to-day operation of the facilities. While these materials could be stored on the Project site, storage would be required to comply with the guidelines established by the manufacturer's recommendations. Consistent with federal, state, and local requirements, the transport, removal, and disposal of hazardous materials from the Project site would be conducted by a permitted and licensed service provider. Any handling, transport, use, or disposal must comply with all applicable federal, state, and local agencies and regulations, including the EPA, Department of Toxic Substances Control, CAL/OSHA, RCRA, and the Apple Valley Fire Protection District.

Although the future tenants are not known yet, in the event that a future tenant's operations require them to transport, use, or dispose of quantities of hazardous materials identified by the state, pursuant to the Health and Safety Code and in accordance with the SBCFD's CUPA requirements, the owner/operator must complete and

submit a HMBP to the California Environmental Reporting System. An HMBP is a document containing detailed information on the inventory of hazardous materials at a facility; emergency response plans and procedures in the event of a reportable release or threatened release of a hazardous material; training for all new employees and annual training, including refresher courses, for all employees in safety procedures in the event of a release or threatened release of a hazardous material; and a site map that contains north orientation, loading areas, internal roads, adjacent streets, storm and sewer drains, access and exit points, emergency shutoffs, evacuation staging areas, hazardous material handling and storage areas, and emergency response equipment. The HMBP provides basic information necessary for use by first responders to prevent or mitigate damage to the public health and safety and the environment from a release or threatened release of hazardous materials, and to satisfy federal and state Community Right-To-Know laws. Therefore, long-term operational impacts associated with the routine transport, use, or disposal of hazardous materials would be less than significant.

In summary, the Project would result in less than significant impacts with regard to the creation of 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?

Less Than Significant Impact. During construction, hazardous materials such as fuels and lubricants would be transported to and used on site in construction vehicles and equipment. Construction waste is a potential pollutant source of concern for the Bell Mountain Wash and Mojave River, which are located hydrologically down gradient of the Project site. Demolition of the existing metal storage building associated with stockpiling activities could contribute additional construction waste. Concrete, paint, and other materials that are also used on construction sites could be major contributors to habitat pollution, in the event that such materials exit a construction site. However, the potential for the use of these materials to result in significant hazards to the public or the environment would be low for the reasons described below.

The Project contractor and construction crews would be required to comply with all applicable regulations governing the storage, handling, and disposal of hazardous materials and waste. The Project would also be required to comply with the NPDES Municipal Separate Storm Sewer System (MS4) Permit, including the regulation of surface water quality. Under the NPDES MS4 Permit, the development of 1.0 acres or more of land must file a notice of intent with the State Water Resources Control Board to comply with the state NPDES General Construction Permit. Implementation of this Permit would require the development of a site-specific stormwater pollution prevention plan (SWPPP) for construction activities. The SWPPP is required to identify BMPs that protect stormwater runoff and ensure avoidance of substantial degradation of water quality. Typical BMPs that could be incorporated into the SWPPP to minimize the off-site runoff of pollutants would include the following:

- Diverting off-site runoff away from the construction site
- Vegetating landscaped/vegetated swale areas as soon as feasible following grading activities
- Using drop inlet protection (filters and sandbags or straw wattles), with sandbag check dams within paved areas
- Implementing specifications for construction waste handling and disposal
- Using contained equipment wash-out and vehicle maintenance areas
- Training, including for subcontractors, on general site housekeeping

Incorporation of required BMPs would help control the use of hazardous substances during construction and would minimize the potential for such substances to leave the site. As a result, there would be reduced potential for the public and environment to be exposed to hazardous chemicals and materials as a result of construction activities. The implementation of construction BMPs identified in the Project's SWPPP and adherence to applicable hazardous materials and waste regulations would minimize the risk and exposure of the release of hazardous materials to the public and environmental to less than significant levels.

Based on the Phase I ESA, no on-site historical recognized environmental conditions, controlled recognized environmental conditions, recognized environmental conditions, or vapor encroachment conditions were identified. Therefore, based on compliance with applicable regulations, short-term construction impacts associated with creating a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions would be less than significant.

Upon completion of Project construction, routine operation of the Project facilities would likely involve use of industrial grade chemicals and commercially available cleaning products, landscaping chemicals and fertilizers, and various other commercially available products. These materials would be used for the day-to-day operation of the facilities and may involve the use of hazardous materials.

As previously discussed in Threshold A, the future tenants are not known yet. In the event that a future tenant's operations require them to transport, use, or dispose of quantities of hazardous materials identified by the state, pursuant to the Health and Safety Code and in accordance with the SBCFD's CUPA requirements, the owner/operator must complete and submit an HMBP to the California Environmental Reporting System. Completion of an HMBP would ensure that an emergency spill response and containment plan is in place in the event of hazardous spills.

Furthermore, the use, storage, and transport of hazardous materials and wastes would be subject to applicable federal, state, and local health and safety regulations (e.g., RCRA and the Hazardous Waste Control Act "cradle to grave" requirements). All hazardous materials generated and/or used on the Project site would be managed in accordance with all relevant federal, state, and local laws, including the California Hazardous Waste Control Law (California Health and Safety Code Division 20, Chapter 6.5) and the Hazardous Waste Control Regulations (22 CCR 4.5). Moreover, compliance with CAL/OSHA workplace and work practices requirements would avoid the exposure of persons and the environment to hazardous materials.

In addition to the regulations and practices described above, the following requirements would apply to storage and handling of hazardous wastes at the Project site: (1) hazardous materials are required to be stored in designated areas designed to prevent accidental release in accordance with state law, including the California Hazardous Waste Control Act and the California Health and Safety Code; (2) CAL/OSHA requirements prescribe safe work environments for workers working with materials that present a moderate explosion hazard, high fire, or physical hazard or health hazard; (3) federal and state laws related to the storage of hazardous materials would be complied with to maximize containment and provide for prompt and effective clean-up in case of an accidental release; and (4) hazardous materials inventory and response planning reports would be filed with the City in accordance with Unified Program Permit requirements.

Compliance with applicable regulations involving hazardous materials during operation would ensure that such materials are transported, used, stored, and disposed of in a manner that minimizes the potential for upset and accidental conditions resulting in the release of hazardous materials into the environment. Due to the existing

regulations that are required, it is not expected that the Project would create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions would be less than significant.

In summary, the Project would result in less than significant impacts with regard to the creation of 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.

Threshold H: Would the Project result in cumulatively considerable impacts with regard to hazards and hazardous materials?

Less Than Significant Impact. The geographic scope of the cumulative hazards and hazardous material analysis is the immediate Project area, including surrounding land uses and other nearby properties. Adverse effects of hazards and hazardous materials tend to be localized; therefore, impacts from nearby projects would be limited, if any, and the Project site would be primarily affected by Project activities.

During construction, hazardous materials such as fuels and lubricants would be transported to and used on site in construction vehicles and equipment. These contaminants, if improperly handled, could expose the public environment to pollutants. However, water quality enhancement components of the Project, including the implementation of a SWPPP and stormwater BMPs would minimize the potential release of construction-related pollutants on and off site.

Post-development, routine operation of the Project would include the use of various hazardous materials, including chemical reagents, solvents, fuels, paints, and cleaners. These materials would be used for day-to-day operations as well as building and landscaping maintenance. However, compliance with applicable regulations involving hazardous materials during operation would ensure that such materials are transported, used, stored, and disposed of in a manner that minimizes the potential for upset and accident conditions resulting in the release of hazardous materials into the environment. In addition, the owner/operator must complete and submit an HMBP to the California Environmental Reporting System. This would ensure that in the event that an emergency spill response and containment plan is in place in the event of hazardous spills. As such, it is not expected that the Project would create a significant hazard to the public or the environment through routine operations or reasonably foreseeable upset and accident conditions or result in the release or exposure of hazardous materials into the environment. Therefore, cumulative hazards and hazardous materials impacts would be less than significant.

4.7.5 Mitigation Measures and Level of Significance After Mitigation

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?

The Project would result in less than significant impacts with regard to the creation of a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. No mitigation measures are required to reduce impacts to less than significant.

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?

The Project would result in less than significant impacts with regard to the creation of 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. No mitigation measures are required to reduce impacts to less than significant.

Threshold H: Would the Project result in cumulatively considerable impacts with regard to hazards and hazardous materials?

The Project would result in less-than-significant impacts with regard to cumulative hazards and hazardous materials impacts. No mitigation is required. No mitigation measures are required to reduce impacts to less than significant.

4.7.6 References Cited

Town of Apple Valley. 2009. *Town of Apple Valley 2009 General Plan.* Adopted August 2009.

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4.8 Hydrology and Water Quality

This section describes the existing hydrology and water quality conditions of the Project site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed Project.

In addition to the documents incorporated by reference (see Section 2.7, Documents Incorporated by Reference, of this environmental impact report [EIR]), the following analysis is based, in part, on the following sources:

- Preliminary Hydrology Report, prepared by David Evans, and Associates in August 2022 (Appendix H-1)
- Priority Project Water Quality Management Plan, prepared by David Evans, and Associates in August 2023 (Appendix H-2)
- Water Supply Assessment, prepared by Dudek in September 2023 (Appendix H-3)

4.8.1 Existing Conditions

Regional Watershed

The Project site lies within the Mojave River Watershed, an approximately 4,500-square-mile watershed located entirely within San Bernardino County. Elevations within the watershed range from 1,400 feet at Afton Canyon to 8,500 feet above mean sea level (amsl) at Butler Peak in the San Bernardino Mountains (County of San Bernardino 2003). The primary geographic and surface hydrologic feature of the watershed is the Mojave River, the headwaters of which are in the San Bernardino Mountains, and which annually receive greater than 40 inches of precipitation at the highest elevations. Much of the winter precipitation in the San Bernardino Mountains falls in the form of snow, which subsequently provides spring recharge to the Mojave River system due to snowmelt. The Mojave River channel transects the watershed for approximately 120 miles until it reaches Silver Dry Lake near the community of Baker. Some reaches of the Mojave River flow underground in the confined riverbed channel. The Mojave River channel is typically dry downstream of the Mojave Forks Dam except in select locations where groundwater is forced to the surface by geologic structures (County of San Bernardino 2003). At its closest point to the Project site, the Mojave River is located approximately 2.05 miles southwest of the Project site. The Mojave River Watershed has been subdivided into several subwatersheds by the San Bernardino Flood Control District, that include the Upper Mojave, Middle Mojave, Lower Mojave, and Mojave–Baker watersheds. The Project site is located within the within the Upper Mojave subwatershed.

Regional Groundwater

The Project site is located with the Upper Mojave River Valley Groundwater Basin (DWR Basin No. 6-042) as mapped by the California Department of Water Resources (DWR). The Upper Mojave River Valley Groundwater Basin has been divided into 5 management subareas: Este, Oeste, Alto, Centro, and Baja. The Project site is in the Alto Subarea. The Alto Subarea was subsequently further divided to create the Alto Transition Zone (Transition Zone), a sub-management unit used to better assess groundwater and surface flows from Alto to Centro. Each subarea is composed of a unique set of hydrologic and hydrogeologic conditions and land and water demand profiles. The subareas are also hydraulically inter-related to varying degrees based on their respective location to the Mojave River and the distribution of water use in the basin (Mojave Water Agency 2015). The Basin is adjudicated and is exempt from the requirements of developing a Groundwater Sustainability Plan (GSP) as it is designated as a very-low priority basin by the California Department of Water Resources (DWR 2022). The groundwater basin is bounded

on the north from basement rock outcrops near Helendale to those in the Shadow Mountains. The southern boundary is the contact between Quaternary sedimentary deposits and unconsolidated basement rocks of the San Bernardino Mountains. The basin is bounded on the southeast by the Helendale fault and on the east by basement exposures of the mountains surrounding Apple Valley. In the west, the boundary is marked by a surface drainage divide between this basin and El Mirage Valley Basin, and a contact between alluvium and basement rocks that form the Shadow Mountains. (DWR 2004). Unconsolidated basin fill deposits in the Mojave River Basin have been delineated into two aquifer systems: the Floodplain Aquifer and Regional Aquifer (Mojave Water Agency 2015).

Topography and Drainage

The approximately 178-acre Project site consists of predominantly vacant and undeveloped land, as well as disturbed land and unpaved roads. Approximately 20 acres at the northeast portion of the Project site are currently used for stockpiling of soil and similar type materials from off-site mining activities; a metal storage structure associated with the stockpiling activities is located within the stockpiling area. Stockpiling activities would cease upon construction of the Project, and the storage structure would be removed from the site. The Project would include approximately 22.4 acres of off-site improvements for roadway improvements and the re-alignment of Apple Valley Road.

The site slopes from east to west towards the I-15 Freeway at an approximate slope of 4% and consists of multiple flow paths, ridges, and sparse native desert plants. The site's surface elevation ranges between approximately 2,888 and 3,480 feet amsl (Figure 4.8-1, Existing Condition Hydrology Map).

Drainage at the Project occurs as sheet flow that originates from numerous dry desert washes tributary to a series of eight culverts that convey runoff from the southern slopes of Silver Mountain Range across I-15. Runoff from the eight culverts ultimately discharge onto or adjacent to the Project site (Appendix H-1). Most of these watercourses are ephemeral, in that they rarely contain surface water flow and generally have poorly defined banks. Wider desert washes are present downstream of the seven culvert that originate from Silver Mountain.

Beneficial Uses and Total Maximum Daily Loads

Stormwater runoff is a significant contributor to local and regional pollution. Urban stormwater runoff is the largest source of unregulated pollution in the waterways of the United States. Federal, state, and regional regulations require the Town of Apple Valley to control the discharge of pollutants to the storm drain system, including the discharge of pollutants from construction sites and areas of new development.

In accordance with state policy for water quality control, the Lahontan Regional Water Quality Control Board (Lahontan RWQCB) regulates water quality, among various other agencies, within the Mojave River Region. Water quality objectives, plans, and policies for the surface waters within this region are established in the Mojave River Basin Plan Amendment of the Lahontan Basin Plan. The Basin Plan for the Mojave River Region has identified existing and potential beneficial uses supported by the key surface water drainages throughout its jurisdiction. The existing and proposed beneficial uses of the Upper Mojave Hydrologic Area includes the following (Lahontan RWQCB 2019):

- Municipal and Domestic Supply
- Agricultural Supply
- Groundwater Recharge
- Fresh Water Replenishment
- Hydropower Generation

- Water Contact Recreation
- Noncontact Water Recreation
- Commercial and Sport Fishing
- Warm Freshwater Habitat
- Cold Freshwater Habitat
- Wildlife Habitat
- Preservation of Biological Habitats of Special Significance
- Migration of Aquatic Organisms
- Spawning, Reproduction, and/or Early Development
- Water Quality Enhancement
- Flood Water Storage

Under the Clean Water Act (CWA) Section 303(d), the State of California is required to develop a list of impaired water bodies that do not meet water quality standards and objectives. The United States Environmental Protection Agency (EPA) has approved a 303(d) list of water quality impairments for water bodies located downstream of the Project site, which includes the Mojave Forks Reservoir Outlets to the Upper Narrows segment of the Mojave River (SWRCB 2018).

Once a water body has been listed as impaired on the 303(d) list, a total maximum daily load (TMDL) for the constituent of concern (pollutant) must be developed for that water body. A TMDL is an estimate of the daily load of pollutants that a water body may receive from point sources, non-point sources, and natural background conditions (including an appropriate margin of safety), without exceeding its water quality standards. Those facilities and activities that are discharging into the water body, collectively, must not exceed the TMDL. In general, dischargers within each watershed are collectively responsible for meeting the required reductions and other TMDL requirements by the assigned deadline. Only one TMDL has been established for the Mojave River Watershed. A TMDL for the Mojave Forks Reservoir Outlet to the Upper Narrows segment of the Mojave River has been established for fluoride (SWRCB 2020).

Regional Watershed Water Quality

The Mojave River was selected as a priority or "focus" watershed by the State Water Resource Control Board (SWRCB) because of numerous water quality and quantity issues. Historically known for its agriculture, industrial, and military uses, Victor Valley has significantly changed during the last several decades into a satellite of Southern California's urbanization. Urban growth has substantially modified the areas of waste discharges that could potentially affect water quality, including stormwater and wastewater treatment. There are also numerous water quality issues associated with past and current agricultural, industrial, and military land uses throughout the watershed.

Water quality problems in the Mojave River Watershed are primarily related to non-point sources, including erosion (from construction, timber harvesting, and livestock grazing), stormwater, acid drainage from inactive mines, and individual wastewater disposal systems. There are relatively few point-source discharges. Some types of discharges may be considered either point source or non-point source, depending on site-specific circumstances. For example, stormwater that enters one lake through a pipe may be regulated as a point source, while stormwater that enters a lake via sheet flow is considered a non-point-source discharge (Lahontan RWQCB 2019).

In the early 1970s, the Lahontan RWQCB evaluated existing surface water quality data for the Mojave River Watershed. Based on these data, the RWQCB adopted numerical water quality objectives for inorganic constituents in surface waters of the Mojave River and several of its tributaries in the San Bernardino Mountains. These numerical standards generally represented native or background water quality. For the purpose of evaluating the water quality objectives, the RWQCB has assembled two groups of stakeholders. The first group is focused on surface water upstream of the Mojave Forks Dam, which is located near the City of Hesperia. The second group is focused on groundwater of the Mojave River floodplain aquifer downstream of the Mojave Forks Dam, and the few downstream locations where groundwater is forced to the surface of the Mojave River floodplain by geologic structures. The overall goal of the sampling effort is to compare existing surface water quality to the water quality objectives that were developed in the 1970s (Lahontan RWQCB 2002).

The RWQCB assembled a stakeholder group (the Mojave River Watershed Group), including the communities of Town of Apple Valley, the Cities of Hesperia and Victorville, and the County of San Bernardino, to address water quality concerns associated with stormwater. The Mojave River Watershed Group was responsible for developing and implementing a regional stormwater management plan as required by the Phase II Small municipal separate storm sewer systems (MS4) Permit. Identification of critical areas of stormwater flow and the full list of constituents of concern are the primary goals of the Lahontan RWQCB (2002).

The Mojave River Watershed Group publishes an annual report summarizing the results of their Phase II Small MS4 General Permit program, which is intended to minimize or eliminate adverse surface water quality impacts by instituting controls on those MS4 discharges that have the greatest potential to cause environmental degradation. Discharges to, or from, the MS4 are of concern because they may contain pollutants, including trash, debris, sediments, fertilizers, oil, grease, metals, and pesticides. These discharges can result in the loss of surface water beneficial uses and contaminate local drinking water supplies. Among other annual tasks, the stakeholder group has developed a Construction Site Storm Water Runoff Control Program and a Post-Construction Site Storm Water Control Program, which are intended to develop, implement, and enforce programs to prevent the discharge of construction site and post-construction pollutants as well as minimize or eliminate negative impacts on the beneficial uses of receiving waters.

Water Supply

The Project is within the water service area established for Liberty Utilities (Liberty Utilities – Apple Valley 2021). Liberty Utilities currently supplies water to the nearby Walmart Distribution Center that is the proposed source of water tie-in for the Project. Liberty Utilities is an investor-owned public utility, thus considered a Public Water System. Liberty Utilities provides water service primarily within the Town of Apple Valley. As of 2020, Liberty Utilities provides approximately 21,000 municipal connections. (Liberty Utilities – Apple Valley 2021).

Groundwater is the only source of water supply for the Liberty Utilities' distribution system and the only source proposed for the Project. Liberty Utilities provides domestic water from potable supply wells within its service area and provides water for agricultural purposes from groundwater wells that are separate from Liberty Utilities' potable water system.

Pursuant to the requirements of SB 610, a WSA was prepared for the Project and includes a comprehensive assessment of historical demands and a projection of future demands based on forecasted development of the remaining developable lands within the Town's water service area. The WSA concluded the following (Appendix H-3):

> Given Liberty Utilities' projected population forecasts the Project's additional water demand reasonably fits within this projected increase. The UWMP and the Watermaster reports indicate that Liberty Utilities can meet this Project's water demands during normal years, single dry years, and a five consecutive year drought period over the next 20 years.

Groundwater Quality

The Upper Mojave River Valley Basin has numerous groundwater quality issues with key contaminants including arsenic, nitrates, iron, manganese, Chromium-6, and total dissolved solids (TDS) (Mojave Water Agency 2015). Groundwater has been contaminated with trichloroethane (TCE) at the former George Air Force Base, now a federal Superfund site. In addition, leaking underground storage tanks in and around Victorville have introduced fuel additives benzene, toluene, ethylbenzene, xylene, and methyl tertiary butyl ether (MTBE) into groundwater (DWR 2004). However, there are no groundwater quality issues present in local groundwater delivered for potable use by Liberty Utilities (Liberty Utilities – Apple Valley 2021).

Flood Hazards

Floods are natural and recurring events that only become hazardous when human improvements encroach onto floodplains, modifying the landscape and building structures in the areas meant to convey excess water during floods. Unfortunately, floodplains have been attractive to development throughout history, since they provide level ground and fertile soils suitable for agriculture, as well as access to water supplies and transportation routes. However, flood hazards are one of the most destructive natural hazards in the world, responsible for more deaths per year than any other geologic hazard. As the population in the area increases, there is an increased pressure to build on flood-prone areas, and in areas upstream of previously developed land. The construction of impervious surfaces, such as asphalt, associated with increased development means that water that used to be absorbed into the ground becomes runoff to downstream areas. Areas that have not flooded in the past may be subject to flooding in the future if drainage channels that convey storm waters are not designed or improved to carry these increased flows. Developments near the base of the mountains and downstream from canyons that have the potential to convey mudflows are particularly susceptible (Town of Apple Valley 2009).

Portions of Apple Valley are still vulnerable to inundation during the 100-year flood. These areas occur along the Mojave River and Desert Knolls Wash, and within the Apple Valley Dry Lake. Except for Desert Knolls Wash, most of the FEMA flood-prone areas are relatively undeveloped, or in the case of Apple Valley Dry Lake, development is minimal. Rock Springs Road is a major roadway and Mojave River crossing in the planning area. This roadway, as well as numerous secondary roads (mostly in the Dry Lake area), would be flooded and impassable because of the 100-year storm (Town of Apple Valley 2009).

The Federal Emergency Management Agency Flood Map Service Center identifies the Project site as Zone D, which is classified as an area of undetermined, but possible flood hazard (FEMA 2008). The area east and south of the Project site slopes up, is mostly vacant, except, where the bulk of the mining/land disturbing operation at the tops of the hills above the Project site exists. This area drains through the Project site. The areas to the north drain onto and off the Project site, before flowing under the I-15 (Appendix H-1). The presence of native soils that are conducive

to infiltration are present within the entirety of the Project site except along the southeast portion of the proposed Project where mining activities have occurred.

4.8.2 Relevant Regulations, Plans, Policies, and Ordinances

Federal

Clean Water Act

Increasing public awareness and concern for controlling water pollution led to the enactment of the Federal Water Pollution Control Act Amendments of 1972. As amended in 1977, this law became commonly known as Clean Water Act (CWA) (33 USC 1251 et seq.). The objective of the CWA is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. The CWA established basic guidelines for regulating discharges of pollutants into the waters of the United States. The CWA requires that states adopt water quality standards to protect public health, enhance the quality of water resources, and ensure implementation of the CWA.

National Flood Insurance Program

The National Flood Insurance Act of 1968 established the National Flood Insurance Program to provide flood insurance within communities that were willing to adopt floodplain management programs to mitigate future flood losses. The National Flood Insurance Act also requires the identification of all floodplain areas within the United States and the establishment of flood-risk zones within those areas. FEMA is the primary agency responsible for administering programs and coordinating with communities to establish effective floodplain management standards. FEMA is responsible for preparing FIRMs that delineate the areas of known special flood hazards and their risk applicable to the community. The National Flood Insurance Program encourages the adoption and enforcement by local communities' floodplain management ordinances that reduce flood risks. In support of the National Flood Insurance Program, FEMA identifies flood hazard areas throughout the United States on FEMA flood hazard boundary maps.

Federal Antidegradation Policy

The Federal Antidegradation Policy (40 CFR 131.12) requires states to develop and implement statewide antidegradation policies. Pursuant to the Code of Federal Regulations, state antidegradation policies and implementation methods must, at a minimum, (1) protect and maintain existing in-stream water uses; (2) protect and maintain existing water quality, where the quality of the waters exceeds levels necessary to support existing beneficial uses (unless the state finds that allowing lower water quality is necessary to accommodate economic and social development in the area); and (3) protect and maintain water quality in waters considered an outstanding national resource.

National Pollutant Discharge Elimination System

Direct discharges of pollutants into waters of the United States are not allowed, except in accordance with the National Pollutant Discharge Elimination System (NPDES) program, established in Section 402 of the CWA. A Stormwater Pollution Prevention Plan (SWPPP) prepared in compliance with an NPDES permit describes erosion and sediment controls, runoff water quality monitoring, means of waste disposal, implementation of approved local plans, control of post-construction sediment and erosion control measures and maintenance responsibilities, and non-stormwater management controls. Dischargers are also required to inspect construction

sites before and after storms to identify stormwater discharge from construction activity and to identify and implement controls, where necessary.

State

California Porter-Cologne Water Quality Control Act

Since 1973, the California SWRCB and its nine RWQCBs have been delegated the responsibility for administering permitted discharge into the waters of California. The Project falls within the jurisdiction of the Lahontan RWCQB. The Porter-Cologne Water Quality Act (California Water Code Section 13000 et seq.; California Code of Regulations, Title 23, Chapter 3, Chapter 15) provides a comprehensive water quality management system for the protection of California waters. Under this act, "any person discharging waste, or proposing to discharge waste, within any region that could affect the quality of the waters of the state" must file a report of the discharge with the appropriate RWQCB. Pursuant to the act, the RWQCB may then prescribe "waste discharge requirements" that add conditions related to control of the discharge. Porter–Cologne defines "waste" broadly, and the term has been applied to a diverse array of materials, including non-point-source pollution. When regulating discharges that are included in the federal CWA, the state essentially treats Waste Discharge Requirements and NPDES regulations as a single permitting vehicle. In April 1991, the SWRCB and other state environmental agencies were incorporated into the California Environmental Protection Agency.

The RWQCB regulates urban runoff discharges under the NPDES permit regulations. NPDES permitting requirements cover runoff discharged from point (e.g., industrial outfall discharges) and non-point (e.g., stormwater runoff) sources. The RWQCB implements the NPDES program by issuing construction and industrial discharge permits.

Under the NPDES permit regulations, best management practices (BMPs) are required. EPA defines BMPs as "schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States." BMPs include treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage (40 CFR 122.2).

California Antidegradation Policy

The California Antidegradation Policy, otherwise known as the Statement of Policy with Respect to Maintaining High-Quality Water in California, was adopted by the SWRCB (State Board Resolution No. 68-16) in 1968. Unlike the federal Antidegradation Policy, the California Antidegradation Policy applies to all waters of the state (e.g., includes isolated wetlands and groundwater), not just surface waters. The policy states that whenever the existing quality of a water body is better than the quality established in individual Basin Plans, such high quality must be maintained, and discharges to that water body must not unreasonably affect present or anticipated beneficial uses of such water resources.

CALGreen

Formerly known as the California Green Building Standards Code, Title 24, Part 11, of the California Code of Regulations, CALGreen is designed to improve public health, safety, and general welfare by utilizing design and construction methods that reduce the negative environmental impact of development and to encourage sustainable construction practices. CALGreen provides mandatory direction to developers of all new construction and

renovations of residential and non-residential structures with regard to all aspects of design and construction, including, but not limited to, site drainage design, stormwater management, and water use efficiency. Required measures are accompanied by a set of voluntary standards designed to encourage developers and cities to aim for a higher standard of development.

Section 303 of the Clean Water Act (Beneficial Uses and Total Maximum Daily Loads)

The Lahontan RWQCB is responsible for the protection of the beneficial uses of waters within the Project area in San Bernardino County. The Lahontan RWQCB uses its planning, permitting, and enforcement authority to meet its responsibilities adopted in the Lahontan Basin Plan to implement plans, policies, and provisions for water quality management.

In accordance with state policy for water quality control, the RWQCB employs a range of beneficial use definitions for surface waters, groundwater basins, marshes, and mudflats that serve as the basis for establishing water quality objectives and discharge conditions and prohibitions. The Lahontan Basin Plan has identified existing and potential beneficial uses supported by the key surface water drainages throughout its jurisdiction. Beneficial uses of waters within the Mojave River Watershed are addressed in the Mojave River Basin Plan Amendment of the Lahontan Basin Plan.

Under CWA Section 303(d), California is required to develop a list of impaired water bodies that do not meet water quality standards and objectives. A TMDL defines how much of a specific pollutant/stressor a given water body can tolerate and still meet relevant water quality standards. The Lahontan RWQCB has developed TMDLs for select reaches of water bodies.

California Toxics Rule

EPA has established water quality criteria for certain toxic substances via the California Toxics Rule. The California Toxics Rule established acute (i.e., short-term) and chronic (i.e., long-term) standards for bodies of water, such as inland surface waters and enclosed bays and estuaries, that are designated by each RWQCB as having beneficial uses protective of aquatic life or human health.

California Water Code

The California Water Code includes 22 kinds of districts or local agencies with specific statutory provisions to manage surface water. Many of these agencies have statutory authority to exercise some forms of groundwater management. For example, a Water Replenishment District (Water Code Section 60000 et seq.) is authorized to establish groundwater replenishment programs and collect fees for that service, and a Water Conservation District (Water Code Section 75500 et seq.) can levy groundwater extraction fees. Through special acts of the Legislature, 13 local agencies have been granted greater authority to manage groundwater. Most of these agencies, formed since 1980, have the authority to limit export and control some in-basin extraction upon evidence of overdraft or the threat of an overdraft condition. These agencies can also generally levy fees for groundwater management activities and for water supply replenishment.

Assembly Bill 3030 – Groundwater Management Act

In 1992, Assembly Bill 3030 was passed, which increased the number of local agencies authorized to develop a groundwater management plan and set forth a common framework for management by local agencies throughout

California. These agencies could possess the same authority as a water replenishment district to "fix and collect fees and assessments for groundwater management" (Water Code Section 10754), provided they receive a majority of votes in favor of the proposal in a local election (Water Code Section 10754.3).

Sustainable Groundwater Management Act

On September 16, 2014, Governor Jerry Brown signed into law a three-bill legislative package—AB 1739 (Dickinson), Senate Bill (SB) 1168 (Pavley), and SB 1319 (Pavley)—collectively known as SGMA. This Act requires governments and water agencies of high- and medium-priority basins to halt overdraft and bring groundwater basins into balanced levels of pumping and recharge. Under SGMA, these basins should reach sustainability within 20 years of implementing their sustainability plans. For critically over-drafted basins, sustainability should be achieved by 2040. For the remaining high- and medium-priority basins, 2042 is the deadline. Through the SGMA, the CDWR provides ongoing support to local agencies through guidance, financial assistance, and technical assistance. SGMA empowers local agencies to form Groundwater Sustainability Agencies (GSAs) to manage basins sustainably and requires those GSAs to adopt GSPs for crucial groundwater basins in California.

Urban Water Management Plans

Pursuant to the California Urban Water Management Act (California Water Code Sections 10610–10656), urban water purveyors are required to prepare and update a UWMP every 5 years. UWMPs are prepared by California's urban water suppliers to support long-term resource planning and ensure adequate water supplies. Every urban water supplier that either delivers more than 3,000 acre-feet per year of water annually or serves more than 3,000 connections are required to assess the reliability of its water sources over a 20-year period under normal-year, dry-year, and multiple-dry-year scenarios in a UWMP. UWMPs must be updated and submitted to the CDWR every 5 years for review and approval. The Project site is within the area addressed by Liberty Utilities – Apple Valley UWMP.

Senate Bill 610 and Senate Bill 221: Water Supply Assessments

SB 610 and SB 221, amended into state law effective January 1, 2002, improve the linkage between certain land-use decisions made by cities and counties and water supply availability. The statutes require detailed information regarding water availability and reliability with respect to certain developments to be included in the administrative record, to serve as the evidentiary basis for an approval action by the City or County on such projects. Under Water Code Section 10912(a), projects subject to the California Environmental Quality Act (CEQA) that require a water supply assessment (WSA) include (1) residential development of more than 500 dwelling units; (2) shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space; (3) commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space; (4) hotel, motel or both, having more than 500 rooms; (5) industrial, manufacturing, or processing plants, or industrial parks 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; (6) mixed-use projects that include one or more of the projects specified; or (7) a project that would demand an amount of water equivalent to or greater than the amount required by a 500 dwelling unit project. A fundamental source document for compliance with SB 610 is the UWMP, which can be used by the water supplier to meet the standard for SB 610. SB 221 applies to the Subdivision Map Act, conditioning a tentative map on the applicant to verify that the public water supplier has sufficient water available to serve the proposed development.

Regional

Mojave River Watershed Water Quality Management Plan

The 2013 Phase II Small MS4 Permit, adopted by the SWRCB, and issued statewide, requires all new development projects covered by this Order to incorporate low-impact development (LID) BMPs to the maximum extent practicable. In San Bernardino County, the Phase II MS4 Permit is applicable within the Mojave River Watershed. In addition, the Order also requires the development of a standard design and post-development BMP guidance for incorporation of site design/LID, source control, treatment control BMP (where feasible and applicable), and hydromodification mitigation measures to the maximum extent practicable to reduce the discharge of pollutants to receiving waters. The purpose of this technical guidance document for the Water Quality Management Plan (WQMP) is to provide direction to project proponents on the regulatory requirements applicable to a private or public development activity, from project conception to completion. This technical guidance document is intended to serve as a living document, which will be updated as needed to remain applicable beyond the current Phase II MS4 Permit term. Any non-substantive updates to the technical guiding document and WQMP template will be provided in the annual report. Future substantive updates shall be submitted to the Lahontan RWQCB for review and approval, prior to implementation.

Mojave Storm Water Management Program

The NPDES General Permit NO. CAS000004, Waste Discharge Requirements for stormwater discharges from Small MS4s requires that Permittees develop a Storm Water Management Program (SWMP). The purpose of this SWMP is to keep the Mojave River clean to the maximum extent practicable using BMPs. These practices would reduce stormwater runoff and non-storm water runoff flowing to the river. BMPS would also serve to keep contaminations, including sediment, non-sediment solids, nutrients, pathogens, oxygen-demanding substances, petroleum hydrocarbons, heavy metals, floatables, polycyclic aromatic hydrocarbons, pesticides, herbicides and trash from entering the storm drain system.

Local

Town of Apple Valley General Plan

The Town of Apple Valley General Plan contains the following goals and policies related to hydrology and water quality:

Water Resources Element

Goal: A dependable supply of safe, high-quality domestic water to meet the needs of all segments of the community.

Policy 1.A: The Town shall coordinate land development and assure a balance of development and water supply that ensures the long-term maintenance of an adequate supply of water, and its continued high quality.

Policy 1.B: To ensure that overall and per capita water demand from new development is reduced, the Town shall continue to require the use of drought-tolerant, low water consuming landscaping, intelligent irrigation controllers, and other water-conserving strategies and technologies in irrigated areas.

Policy 1.C: The Town shall continue to coordinate with the Building Industry Association and other members of the building industry to encourage the use of faucets, showerheads and appliances that exceed Titles 20 and 24 water efficiency requirements.

Policy 1.D: To the greatest extent practicable, the Town shall direct new development to provide irrigation systems that are able to utilize reclaimed water, when available, for use in common area and streetscape landscaping.

Policy 1.E: To the greatest extent practicable, the Town shall continue to require new development to connect to the community sewer system. Where sewer service is not available and lots are created of less than one (1) acre in size, the Town shall require the installation of "dry sewers" and the payment of connection fees for future sewer main extensions.

Policy 1.F: Consistent with community design standards and local and regional drainage plans, the Town shall provide development standards and guidelines for the construction of on-site storm water retention facilities.

Policy 1.H: The Town shall confer with appropriate water agencies and purveyors, as necessary, to assure adequate review and mitigation of potential impacts of proposed development on local water resources.

Flooding and Hydrology Element

Goal: Protect lives and property from flooding hazards through a comprehensive system of flood control facilities throughout the Town.

Policy 1.C: The Town shall actively cooperate with FEMA regarding amendments to local Flood Insurance Rate Maps, recognizing the importance of redesignation of the 100-year and 500-year flood plains within the Town boundaries as facility improvements are completed.

Policy 1.D: All new development within the Town shall be required to incorporate adequate flood mitigation measures, including the adequate siting of structures located within flood plains, grading that prevents adverse drainage impacts to adjacent properties, and on-site retention of runoff.

Policy 1.E: Assure that adequate access is maintained during major storm events, and that safe all-weather crossings over drainage facilities and flood control channels are provided where necessary.

Policy 1.F: Pursue all credible sources of funding for local and regional drainage improvements needed for adequate flood control protection.

Water, Wastewater and Utilities Element

Goal: The provision of a range of water, wastewater and other utility services and facilities that is comprehensive and adequate to meets the Town's near and long-term needs in a cost-effective manner.

Policy 1.A: The Town shall coordinate with the various domestic water service providers to ensure that local and regional domestic water resources and facilities are protected from over-exploitation and contamination.

Policy 1.D: The Town shall confer and coordinate with service and utility providers to ensure the timely expansion of facilities so as to minimize or avoid environmental impacts and disturbance of existing improvements. Planning efforts shall include design and siting of support and distribution facilities.

4.8.3 Thresholds of Significance

The significance criteria used to evaluate the Project impacts to hydrology and water quality are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to hydrology and water quality would occur if the project would:

A. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater 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 water 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. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.
E. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.
F. Result in cumulatively considerable hydrological or water quality impacts.

Threshold D was analyzed in the Initial Study (Appendix A) and was not carried forward for further analysis in this EIR. See Chapter 5, Effects Found Not To Be Significant, for additional detail.

4.8.4 Impacts Analysis

Threshold A: Would the Project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Short-Term Construction Impacts

Less-than-Significant Impact. Construction activities associated with the Project site would involve ground disturbing activities and the use of various hazardous construction materials (e.g., fuels, oils, paint, and solvents), that are commonly used in building construction or for the purpose of heavy equipment maintenance. Earthwork activities can expose soils to the effects of wind and water erosion resulting off-site transport of sediments that could potentially adversely affect water quality of receiving waters. Inadvertent release of hazardous materials or wastes could also adversely affect water quality if not handled appropriately.

Construction of the Project would disturb more than 1 acre and therefore would be subject to NPDES permit requirements. The Town of Apple Valley is a co-permittee under the San Bernardino County Municipal NPDES MS4 Phase II Stormwater permit. The NPDES MS4 Permit requires the Town to implement a Construction Site Stormwater Runoff Control Program in accordance with the regional SWMP for the Mojave River Watershed (County of San Bernardino 2003). The SWMP requires permittees to implement and enforce measures to reduce pollutants from construction activities that result in a land disturbance of greater than or equal to 1 acre. To comply with the regulatory requirements of the SWMP, the Town requires the implementation of an erosion and sediment control plan (ESCP) for projects that include soil disturbance during construction. Implementation of an ESCP would ensure that construction-related BMPs are implemented during all phases of construction to prevent, to the maximum extent practicable, construction site pollutants from leaving the site during all phases of construction. In addition to an ESCP, implementation of a WQMP in accordance with the Mojave River Watershed Technical Guidance Document for Water Quality Management Plans (County of San Bernardino 2016), would ensure that stormwater treatment and conveyance would be sufficient prior to Project build-out (Appendix H-2). Submittal, review, and approval of both the WQMP and ESCP by the Town are necessary prior to the issuance of grading permits for Project development.

Under the NPDES MS4 Phase II Stormwater Permit, the development of 1 acre or more of land must file a notice of intent with the SWRCB to comply with the State NPDES General Construction Permit. Implementation of this Permit would require the development of a site-specific SWPPP for construction activities. The SWPPP is required to identify BMPs that protect stormwater runoff and ensure avoidance of substantial degradation of water quality. Typical BMPs include but are not limited to the following:

- Diverting off-site runoff away from the construction site
- Vegetating landscaped/vegetated swale areas as soon as feasible following grading activities
- Placing perimeter straw wattles to prevent off-site transport of sediment
- Using drop inlet protection (filters and sandbags or straw wattles), with sandbag check dams within paved areas
- Regular watering of exposed soils to control dust during construction
- Implementing specifications for construction waste handling and disposal
- Using contained equipment wash-out and vehicle maintenance areas
- Maintaining erosion and sedimentation control measures throughout the construction period
- Stabilizing construction entrances to avoid trucks from imprinting soil and debris onto adjoining roadways
- Training, including for subcontractors, on general site housekeeping

Consistent with the State NPDES General Construction Permit and the Mojave River Watershed Storm Water Management Program requirements, the SWPPP would incorporate applicable BMPs above as well as BMPs for materials and waste storage and handling, and equipment and vehicle maintenance and fueling would reduce the potential discharge of polluted runoff from construction sites. Compliance with existing NDPES General Construction Permit requirements and other hazardous material regulations would prevent violation of water quality standards and minimize the potential for contributing sources of polluted runoff. Compliance with existing regulations would ensure that the Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface quality from construction activities. Therefore, short-term construction impacts associated with water quality standards and waste discharge requirements would be less than significant.

Long-Term Operational Impacts

Less-than-Significant Impact. As previously discussed, the Project site currently consists of undeveloped land. Implementation of the Project would result in the construction and operation of 2 industrial/warehouse buildings totaling approximately 2,604,446 square feet on an approximately 178-acre site. Building 1, the westernmost building, would be approximately 1,507,326 square feet, and Building 2, the easternmost building, would be approximately 1,097,120 square feet. The Project would involve associated improvements, including loading docks, truck and vehicle parking, and landscaped areas. Construction of the Project would introduce new impervious surfaces that could contribute pollutants to stormwater runoff in the long term from vehicle use in uncovered parking areas (through small fuel and/or fluid leaks), uncovered refuse storage/management areas, landscape/open space areas (if pesticides/herbicides and fertilizers are improperly applied), and general litter/debris (e.g., generated during facility loading/unloading activities). During storm events, the first few hours of moderate to heavy rainfall could wash potential pollutants on site from the impervious surface areas where, without proper stormwater controls and BMPs, those pollutants could enter the storm drain system before eventually being discharged into a tributary of Bell Mountain Wash and eventually the Mojave River. Between periods of rainfall, surface pollutants tend to accumulate, and runoff from the first significant storm of the year ("first flush") would likely have the largest concentration of pollutants.

The NPDES MS4 Phase II Stormwater Permit requires the Town to implement a Post-Construction Storm Water Management Program in accordance with the regional SWMP. This Program sets limits of pollutants being discharged into waterways and requires all new development to incorporate structural and non-structural BMPs to improve water quality. To meet the requirements of the SWMP, the Town requires the incorporation of LID features into new development and redevelopment projects as specified in the Mojave River Watershed Technical Guidance Document for Water Quality Management Plans. In accordance with the NPDES permit, the Town is responsible for monitoring WQMPs, which address stormwater pollution from new private development. Site-specific WQMPs for individual projects must incorporate the SWRCB required minimum Runoff Capture BMPs. In addition, the WQMP specifies the minimum required LID features, as well as the BMPs that must be used for a designated project.

Project design, construction, and operation would be completed in accordance with the NPDES MS4 permit and the *Mojave River Watershed Technical Guidance Document for Water Quality Management Plans,* with the goal of reducing the number of pollutants in stormwater and urban runoff. The Project-specific Preliminary Hydrology Report (Appendix H-1) and Water Quality Management Plans for the proposed Project (Appendix H-2) determined that four underground Stormtech infiltration systems will capture the required volume of runoff and mitigate hydromodification caused by development, and would be sufficient to address on-site stormwater water quality-related issues consistent with permit requirements. The improvements outlined in the Preliminary Hydrology Report and WQMP would be constructed as part of the Project.

Post-construction, the Project is designed to capture a total of 823,869 cubic feet of stormwater using proprietary Stormtech underground infiltration/retention systems. There will be on-site catch basins to collect the storm water and convey the storm flows to underground infiltration and retention systems. Overflows will be conveyed to the proposed sump/flow distribution prior to discharging into the pipes under the freeway.

The site has been split into four drainage areas. Drainage Area A covers the southwestern portion of the site and provides a detention/infiltration system capable of capturing 227,392 cubic feet of runoff. Drainage Area B covers the northwestern portion of the site and provides a detention/infiltration system capable of capturing 230,634 cubic feet of runoff. Drainage Area C covers the southeastern portion of the site and provides a detention/infiltration

system capable of capturing 185,343 cubic feet of runoff. Drainage Area D covers the northeastern portion of the site and provides a detention/infiltration system capable of capturing 180,500 cubic feet of runoff.

In accordance with the San Bernardino County Hydrology Manual, the infiltration and detention basin system would be designed to treat water quality for a 2-year, 24-hour storm event, and sized to accommodate the volumes and flow rates of a 100-year, 24-hour storm event. The stormwater drainage system basins would be sized and designed to prevent flooding from a 100-year storm while also accommodating the required retention volume for water quality purposes. The basins would be designed to capture the entire volume generated from a 10-year storm, meaning no runoff would be discharged off site, and more than 95% of the 100-year volume consistent with the Town's requirements (Appendix H-1). The combination of the underground infiltration basin and the extended detention basins would capture the design capture volume, the hydromodification volume, and both peak discharge and runoff volumes from the 10-year 24-hour and the 100-year 24-hour storm events. Post-development hydrologic conditions would effectively be reduced to levels below those that have been calculated for existing or pre-development hydrologic conditions (Appendix H-2).Implementation of these LID features and BMPs would reduce the discharge of pollutants into receiving waters, including inadvertent release of pollutants (e.g., hydraulic fluids and petroleum); improper management of hazardous materials; trash and debris; and improper management of portable restroom facilities (e.g., regular service), in accordance with all relevant local and state development standards.

With respect to groundwater quality, stormwater to be collected and treated in the infiltration and detention basins would be able to meet retention time requirements for water quality purposes in accordance with San Bernardino County requirements. Therefore, with adherence to NPDES MS4 permit and San Bernardino County Hydrology Manual standards, long-term operational impacts associated with water quality standards and waste discharge requirements 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?

Groundwater Recharge

Less-than-Significant Impact. The Project site is underlain by the Upper Mojave River Valley Groundwater Basin. Currently, the Project site is undeveloped and pervious, which allows for groundwater recharge. The development of the Project site would result in a substantial increase in impermeable surfaces, which could impede groundwater recharge. However, the Project would incorporate LID features, including infiltration/retention systems designed to retain the required design capture volume. Detained stormwater would infiltrate through the bottom of the infiltration basins and into the underlying soils. Because the Project would meet and exceed infiltration requirements, stormwater would continue to be able to infiltrate soils and recharge the underlying Upper Mojave River Valley Groundwater Basin. Therefore, impacts associated with groundwater recharge attributed to development of the site would be less than significant.

Groundwater Supply

Less-than-Significant Impact. Liberty Utilities sources all its water supply from groundwater and only extracts the amount of water necessary to meet its demand in any given year. The source of groundwater for Liberty Utilities is within the Alto Subarea subbasin of the Upper Mojave River Valley Groundwater Basin. The basin is adjudicated and thus has a managed groundwater extraction rate. The Mojave Water Agency serves as the entity responsible for managing the use, replenishment, and protection of the groundwater basin. The Mojave Water Agency and other retail water purveyors use imported State Water Project water to replenish the Upper Mojave Water Basin as part

of the Regional Recharge and Recovery Project (also referred to as the "R3" project). This practice further assists regional water providers in sustainable management of the Mojave Groundwater Basin.

A WSA was prepared for the Project and includes a comprehensive assessment of historical demands and a projection of future demands based on forecasted development of the remaining developable lands within the Town's water service area (Appendix H-3). Liberty Utilities has a history of meeting its demands even during recent periods of drought and has a water shortage contingency plan in place in the event of severe drought. The WSA concluded that the 2020 UWMP has already accounted for increased development and that the proposed demand from the proposed project would not likely adversely affect the water supply for Liberty Utilities (Appendix H-3). The 2020 UWMP has demonstrated that Liberty Utilities has projected supply and demand estimates under normal-year, single-dry-year, and multiple-dry-year conditions over a 30-year projection that can be met without adversely affecting sustainable groundwater management of the basin. See also Section 4.14, Utilities and Service Systems.

Therefore, the proposed Project would not substantially decrease groundwater supplies and would not impede sustainable groundwater management of the basin and impacts associated with groundwater supplies 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:

Threshold C(I): result in substantial erosion or siltation on or off-site;

Less-than-Significant Impact. As previously discussed, the Project site currently consists primarily of undeveloped land, unpaved roadways, and an approximately 20-acre portion currently used for stockpiling of soils and similar materials with an associated metal storage structure. Prior to construction commencing, stockpiling activities would cease, and the metal storage building would be demolished and removed from the Project site during site preparation. Construction of the proposed Project would result in the introduction of new impervious surfaces, including warehouse buildings, parking lots, access roads and walkways. As discussed under Threshold A, construction activities would be required to implement BMPs as part of a SWPPP that would include erosion control measures for all exposed soils. Once developed, the buildings, paved surfaces, other on-site improvements, and drainage control features would stabilize and help retain on-site soils. The remaining portions of the Project site containing pervious surfaces would primarily consist of landscaped areas including a mix of trees, shrubs, plants, and groundcover that would help retain on-site soils while preventing wind and water erosion from occurring.

Moreover, the Project's drainage system would include catch basins and underground infiltration basins to retain and infiltrate water on site and address the Hydromodification Performance Criteria required for the proposed Project in accordance with MS4 Phase II Storm Water permit requirements. The stormwater drainage systems would be based on preliminary engineering considerations, including the minimum setback from structures as recommended by the geotechnical engineer. The adherence to water quality control requirements consistent with MS4 Phase II Storm Water permit requirements would ensure that the proposed changes to drainage patterns would result in less than significant impacts related to erosion or siltation in runoff on or off site.

Threshold C(II): substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site;

Less-than-Significant Impact. Construction of the proposed Project would alter the existing drainage patterns through the introduction of new impervious surfaces. However, as discussed above, the Project would maintain

adequate stormwater conveyance through compliance with existing drainage control standards for volume control consistent with the Mojave Watershed Technical Guidance Document and required LID and Hydromodification Performance Criteria in accordance with the 2013 Phase II Small MS4 Permit. The proposed Project improvements would be designed to convey runoff as sheet flows away from buildings and allow on-site infiltration through the remaining landscaped pervious areas as well as the underground retention basins. The proposed retention basins satisfy the Town of Apple Valley drainage management guidelines and ensure the Project will not exceed 90% of the pre-development runoff for the 100-year storm event and 5% of the 10-year storm event. Basin routing, infiltration, and storage also mitigate the proposed time of concentration to below the existing time of concentration. The potential for flooding on or off site would be reduced to less than significant levels.

Threshold C(III): create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

Less-than-Significant Impact. As previously discussed under Threshold A, the proposed drainage system would be designed to convey runoff in compliance with the Town of Apple Valley and the County of San Bernardino WQMP and SWMP requirements. In addition, the Project would incorporate LID features, including on-site infiltration/retention basins and ongoing maintenance requirements to ensure continued successful operation. Collectively, these LID features would lower the potential of the incidental releases of contaminants to the environment such as oil, grease, nutrients, heavy metals, and certain pesticides, including legacy pesticides. As a result, the Project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Therefore, impacts associated with stormwater drainage systems capacity and polluted runoff sources would be less than significant.

Threshold C(IV): impede or redirect flood flows?

Less-than-Significant Impact. The Federal Emergency Management Agency Flood Map Service Center identifies the Project site as Zone D, which is classified as an area of undetermined flood hazard but still an area where flooding is possible (FEMA 2008). However, as previously discussed, although onsite drainage patterns would be altered because of Project development, the Project would maintain adequate stormwater conveyance as to not result in an increase of surface runoff that would result in flooding on or off site associated with the 10-year or 100-year storm events with volumes either fully captured or at least resulting in discharges reduced to very low flows. Therefore, impacts associated with impeding or redirecting flood flows would be less than significant.

Threshold E: Would the Project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less-than-Significant Impact. As previously discussed, the Project would comply with applicable water quality regulatory requirements, including implementation of a SWPPP, stormwater BMPs, and LID design, which would minimize potential off-site surface water quality impacts and contribute to a reduction in water quality impacts within the overall Mojave River Watershed. Compliance with these regulatory drainage control requirements are consistent with Lahontan Basin Plan policies and water quality objectives, which would reduce potential water quality impairment of surface waters such that existing and potential beneficial uses of key surface water drainages throughout the jurisdiction of the Mojave River Basin Plan Amendment would not be adversely impacted. As a result, the Project would not conflict with or obstruct the Lahontan Basin Plan.

With respect to groundwater management, Liberty Utilities would be supplying water for the proposed Project and sources its water from groundwater in the Alto Subarea of the Upper Mojave River Valley Basin. Historical practices

led to declining water levels in the Basin, which resulted in the adjudication of the Basin in 1996 in order to manage groundwater supplies and regulate extraction. Since adjudication, the Mojave Basin Area has been well managed as evidenced by stabilized water levels and reliable supply (Liberty Utilities – Apple Valley 2021). The WSA prepared for the proposed Project, which relied in part on the 2020 UWMP for Apple Valley, determined that demand of the Project can be met in normal, single-dry-year, and multiple-dry-year scenarios (Appendix H-3). Further, the Project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge and would not conflict with or obstruct a water quality control plan or sustainable groundwater management plan. Therefore, impacts associated with water quality control plans and sustainable groundwater management plans would be less than significant.

Threshold F: Would the Project result in cumulatively considerable hydrological or water quality impacts?

Water Quality

Less-than-Significant Impact. The geographic context for the analysis of cumulative impacts associated with water quality is the encompassing Mojave River Watershed for surface water and the Upper Mojave River Valley Groundwater Basin for groundwater. Cumulative development in the watershed and groundwater basin could add new sources of stormwater runoff that could adversely affect surface water or groundwater quality. Construction activities associated with the Project could temporarily increase the number of exposed surfaces that could contribute to sediments in stormwater runoff. Additionally, materials associated with construction activities could be deposited on surfaces and carried to receiving waters in stormwater runoff. However, all cumulative development in the region would be subject to the existing regulatory requirements to protect water quality and minimize increases in stormwater runoff as has been described for the proposed Project. For example, Part 1, Section I of the MS4 Phase II NPDES Permit requires the Town of Apple Valley as well as other co-permittees to effectively prohibit non-stormwater discharges from within its boundaries, into that portion of the MS4 that it owns or operates. Part 2, Section 1.E of the MS4 Phase II NPDES Permit requires the Town to control discharges to and from municipal sewer systems, so as to comply with the NPDES permit and to specifically prohibit certain discharges identified in the NPDES Permit.

Every 2 years, the Lahontan RWQCB must re-evaluate water quality within its geographic region and identify those water bodies not meeting water quality standards. For those impaired water bodies, a TMDL must be prepared and implemented to reduce pollutant loads to levels that would not contribute to a violation of water quality standards. All developments within the Mojave River Watershed are subject to the water quality standards outlined in the Mojave River Basin Plan and must comply with any established TMDLs. The continuing review process would ensure that cumulative development within the watershed would not substantially degrade water quality.

The County and local jurisdictions located within San Bernardino County are co-permittees under the San Bernardino County MS4 Phase II NPDES stormwater permit. The NPDES permit sets limits on pollutants being discharged into waterways and requires that the project designer and/or contractor of all new development projects that fall under specific project categories develop a WQMP that includes LID design requirements related to water quality. The LID design requirements would address long-term effects on water quality within the San Bernardino County watersheds and ensure that BMPs and LID designs minimize potential water quality concerns to the maximum extent practicable. Therefore, impacts associated with water quality standards and polluted runoff in the watersheds would be minimized, and the Project's contribution to cumulative impacts would be less than significant.

Water Supply

Less-than-Significant Impact. The development of the Project would increase water demand compared to existing conditions. The Project would be served by Liberty Utilities for which their 2020 UWMP contains detailed information about the urban water supplier's water supply and demand projections out to 2045. The water demand for the cumulative projects are accounted for in the UWMP because they are consistent with the existing general plan designation and zoning that was established in the plan. According to the Town's General Plan, the land use and zoning designations for the Project site are Regional Commercial (C-R). Additionally, the Project site is located within the Warehouse Distribution Regional Commercial (C-R) Overlay. Given much of Liberty Utilities' service area is already built out, the Project's additional water demand reasonably fits within this projected increase. The UWMP indicates that Liberty Utilities can meet water demands during normal years, single-dry years, and a 5-consecutive-year drought period over the next 20 years (Liberty Utilities – Apple Valley 2021). This is because although the underlying basin is adjudicated, there is no hard limit on the amount of groundwater that can be produced annually; however, the Judgement requires Liberty Utilities to pay the Watermaster for any overages above their allocation to be used for purchasing SWP replacement water. Liberty Utilities can also meet its obligation by transferring unused allocations from other parties in the Alto Subarea. Therefore, because it has historically been able to meet demands during historical 5-year droughts, has a water shortage contingency plan, and planned demand/supply management measures in place, it is projected to meet all demands projected out to 2045 (Liberty Utilities – Apple Valley 2021). As such, there is no cumulative impact and the Project would not be expected to result in increased water usage causing the need for new entitlements, resources, and/or treatment facilities that are not already being planned to accommodate regional growth forecasts.

In addition, the Project-specific WSA (Appendix H-3), which considered existing demands and available as well as projected supplies, concluded that the total projected water supplies available to Liberty Utilities during normal, single-dry, and multiple-dry water years over the next 20 years should be sufficient to meet the projected water demands for projected growth within the service area. These projections consider land use, water development programs and projects, and water conservation. Therefore, due to water planning efforts and water conservation standards, impacts would be less than significant, and the Project's contribution to cumulative impacts would not be cumulatively considerable.

Stormwater Drainage

Less-than-Significant Impact. The geographic context for the analysis of cumulative impacts related to storm drainage is the Mojave River Watershed, which is moderately urbanized with impervious surfaces. Cumulative development within the County could potentially increase the number of impervious surfaces that could cause or contribute to storm drain system capacity exceedance, alter the existing storm drain system, and/or require the construction of new or expanded facilities. All new development and redevelopment within the watershed would be subject to the environmental review process that would analyze potential impacts associated with stormwater runoff to the storm drain system. Cumulative projects would also be subject to existing stormwater regulatory requirements including the completion of drainage analyses to ensure that excessive on- or off-site flooding and runoff would not occur. Similar to the proposed Project, cumulative projects are required to be designed such that any increases in stormwater runoff are retained and infiltrated for the full 10-year storm event and at least 95% of the 100-year storm event. As such, the Project would substantially reduce the volume of stormwater that is discharged off site and thus would not contribute to adverse effects related to stormwater volumes. Potential impacts to drainages associated with the Project would not contribute considerably to cumulative impacts and the impact would be less than significant.

4.8.5 Mitigation Measures and Level of Significance After Mitigation

Threshold A: Would the Project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

The Project would result in **less-than-significant impacts** associated with water quality standards and waste discharge requirements. No mitigation is required.

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 result in **less-than-significant impacts** with regard to decreasing groundwater supplies or impeding sustainable groundwater management of the basin. No mitigation is required.

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:

> ***Threshold C(I): result in substantial erosion or siltation on or off-site;***

The Project would result in **less-than-significant impacts** related to erosion and siltation off site.

> ***Threshold C(II): substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site;***

The Project would result in **less-than-significant impacts** with regard to increasing the rate or amount of surface runoff in a manner that would result in flooding on or off site. No mitigation is required.

> ***Threshold C(III): create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or***

The Project would result in **less-than-significant impacts** with regard to creating or contributing runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. No mitigation is required.

> ***Threshold C(IV): impede or redirect flood flows?***

The Project would result in **less-than-significant impacts** with regard to impeding or redirecting flood flows. No mitigation is required.

Threshold E: Would the Project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

The Project would result in **less-than-significant impacts** with regard to conflicting or obstructing implementation of a water quality control plan or sustainable groundwater management plan. No mitigation is required.

Threshold F: Would the Project result in cumulatively considerable hydrological or water quality impacts?

The Project would result in **less-than-significant cumulative impacts** with regard to resulting in a cumulative considerable hydrology and water quality. No mitigation is required.

4.8.6 References Cited

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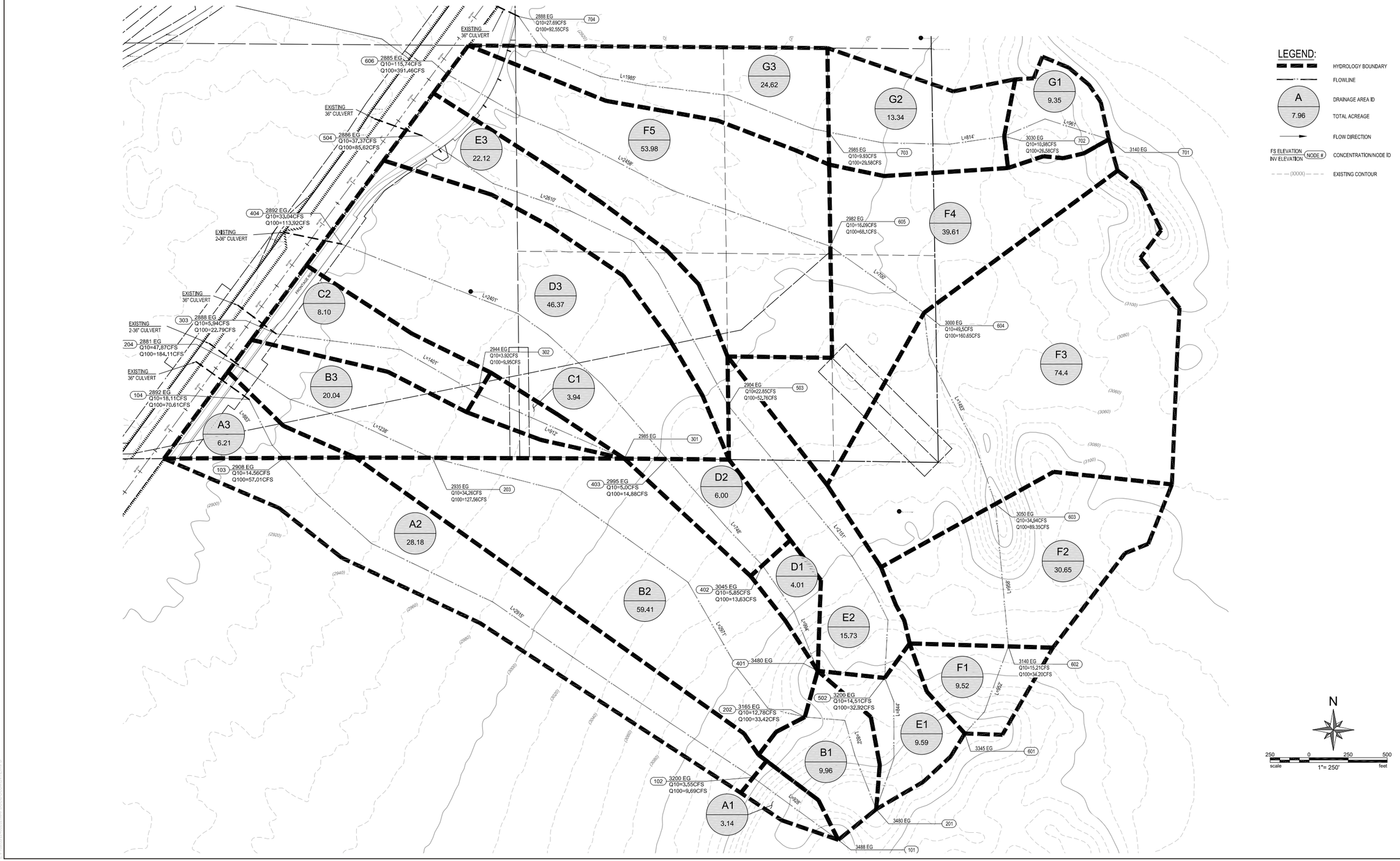

SOURCE: David Evans and Associates, August 2022

FIGURE 4.8-1

Existing Conditions Hydrology Map

Inland Empire North Logistics Center Apple Valley Project

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4.9 Land Use and Planning

This section describes the existing land use and planning conditions of the Inland Empire North Logistics Center Apple Valley (Project) site and vicinity, identifies associated regulatory requirements, evaluates potential impacts. Information contained in this section is based on review of local, regional, and statewide policies and regulations encompassing the Project site, including:

- Southern California Association of Government's (SCAG) Regional Transportation Plan/Sustainable Communities Plan (RTP/SCS; Connect SoCal)
- Town of Apple Valley General Plan
- Town of Apple Valley Municipal Code

Other sources consulted are listed in Section 4.9.6, References Cited.

4.9.1 Existing Conditions

Existing Project Site Conditions

The approximately 178-acre Project site consists of predominantly vacant and undeveloped land, as well as disturbed land and unpaved roads. Approximately 20 acres at the northeast portion of the Project site are currently used for stockpiling of soil and similar type materials from off-site mining activities; a metal storage structure associated with the stockpiling activities is located within the stockpiling area. Stockpiling activities would cease upon construction of the Project, and the storage structure would be removed from the site. The Project would include approximately 22.4 acres of off-site improvements for roadway improvements and the re-alignment of Apple Valley Road.

The Project site is bordered to the west by I-15, which runs northeast–southwest, and to the southwest by another parcel, which gives the site its roughly trapezoidal shape. The Project site is vacant and undeveloped, relatively flat land characterized by desert landscape. A quarry is located south-east of the Project site and mining activities (spoils stockpiling) extend onto the Project site.

Surrounding Conditions

Surrounding land uses are composed primarily of vacant land and scattered development. Land use immediately adjacent to the facility consists of the I-15 to the west, undeveloped parcels of land designated as Regional Commercial (C-R) surrounding the Project site, a parcel of land used as quarry that has been designated as Resource Extraction (I-RE) east, and open areas designated as Estate Residential (R-E) and Open Space Conservation (OS-C) to the southeast. The nearest populated areas are within the northeastern part of the City of Victorville, located approximately 0.82 miles to the south and southeast of the Project site (Town of Apple Valley 2019).

4.9.2 Relevant Regulations, Plans, Policies, and Ordinances

Federal

There are no federal regulations, plans, policies, or ordinances applicable to the land use considerations of the Project.

State

California Planning and Zoning Law

The legal framework under which California cities and counties exercise local planning and land use functions is set forth in California Planning and Zoning Law, Government Code Sections 65000–66499.58. Under State 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. As stated in Section 65302 of the California Government Code, "The general plan shall consist of a statement of development policies and shall include a diagram or diagrams and text setting forth objectives, principle, standard, and plan proposals." While a general plan will contain the community vision for future growth, California law also requires each plan to address the mandated elements listed in Section 65302. The mandatory elements for all jurisdictions are land use, circulation, housing, conservation, open space, noise, and safety. Each of the elements must contain text and descriptions setting forth objectives, principles, standards, policies, and plan proposals.

Senate Bill 743

On September 27, 2013, Governor Brown signed Senate Bill (SB) 743, which became effective on January 1, 2014. The purpose of SB 743 is to streamline the review under the California Environmental Quality Act (CEQA) to balance the needs of congestion management with statewide goals related to infill development, promotion of public health through active transportation, and reduction of greenhouse gas emissions. An in-depth discussion of SB 743 is provided in Section 4.13, Transportation. In summary, SB 743 changes the focus of environmental review of transportation impacts. In the past, environmental review of transportation impacts focused on the delay that vehicles experience at intersections and on roadway segments, which is often measured using levels of service (LOS). Under SB 743, LOS can no longer be used to determine significant transportation impacts under CEQA. The State CEQA Guidelines were updated in 2018 to require use of the vehicle miles traveled (VMT) methodology for assessing transportation impacts.

Regional

Regional Transportation Plan/Sustainable Communities Strategy

Southern California Association of Governments (SCAG) is the designated Metropolitan Planning Organization (MPO) for six Southern California counties (Los Angeles, Ventura, Orange, San Bernardino, Riverside, and Imperial), and is federally mandated to develop plans for transportation, growth management, hazardous waste management, and air quality. The Town of Apple Valley is one of the many jurisdictions that fall under SCAG.

The 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) (also known as the Connect SoCal Plan) was adopted on September 3, 2020, and presents the land use and transportation vision for the region through the year 2045, providing a long-term investment framework for addressing the region's challenges (SCAG 2020). The RTP/SCS explicitly lays out goals related to housing, transportation, equity and resilience in order to adequately reflect the increasing importance of these topics in the region, and where possible the goals have been developed to link to potential performance measures and targets. The RTP/SCS development process involved working closely with local governments throughout the region to collect and compile data on land use and growth trends. The core vision of the RTP/SCS is to build upon and expanded land

use and transportation strategies established over several planning cycles to increase mobility options and achieve a more sustainable growth pattern.

Mojave Desert Air Quality Management District

The MDAQMD is the regional agency responsible for the regulation and enforcement of federal, state, and local air pollution control regulations in the San Bernardino County portion of the MDAB, where the Project is located. The MDAQMD operates monitoring stations in the MDAB, develops rules and regulations for stationary sources and equipment, prepares emissions inventory and air quality management planning documents, and conducts source testing and inspections. The MDAQMD's air quality management plans include control measures and strategies to be implemented to attain state and federal AAQS in the MDAB. The MDAQMD then implements these control measures as regulations to control or reduce criteria pollutant emissions from stationary sources or equipment. The MDAQMD's most recent air quality plans are the PM_{10} attainment demonstration and maintenance plan (MDAQMD 1995) and the O_3 attainment plan (MDAQMD 2008).

The Project's consistency with MDAQMD was analyzed in Section 4.2, Air Quality.

San Bernardino County Congestion Management Program

The San Bernardino County Congestion Management Plan (CMP) was prepared by the San Bernardino Associated Governments (SANBAG) to more directly link land use, transportation, and air quality planning and to prompt reasonable growth management programs that would more effectively utilize new and existing transportation funds to alleviate traffic congestion and related impacts and improve air quality. The San Bernardino County CMP was first adopted in November 1992 and has since been updated 12 times, with the most recent comprehensive update in June 2016. The Project's consistency with the San Bernardino County CMP is discussed in detail in Section 4.13.

Local

Town of Apple Valley General Plan

The Apple Valley General Plan establishes the long-term vision for the Town and fulfills the requirements of California Government Code Section 65302 requiring local preparation and adoption of General Plans. The General Plan includes the following mandated and optional elements: Land Use Element, Circulation Element, Parks and Recreation Element, Housing Element, Water Resources Element, Open Space and Conservation Element, Biological Resources Element, Archaeological and Historic Resources Element, Air Quality Element, Energy and Mineral Resources Element, Geotechnical Element, Flooding and Hydrology Element, Noise Element, Hazardous and Toxic Materials Element, Water, Wastewater and Utilities Element, Public Building and Facilities Element, Schools and Libraries Element, Police and Fire Protection Element, and Emergency Preparedness Element (Town of Apple Valley 2009).

Apple Valley Development Code

The Apple Valley Development Code implements the goals and objectives of the General Plan by regulating the location and use of structures and land through various zoning designations. It is intended to assure orderly and beneficial development, reduce hazards resulting from the inappropriate location or use of improvements, and maintain the Town's distinctive character (Town of Apple Valley 2022). The Zoning Map assigns zoning

designations to all parcels in the Town. It is consistent with the General Plan and directly corresponds to General Plan land use designations.

4.9.3 Thresholds of Significance

The September 2023 Initial Study (Appendix A) for the proposed Project included an analysis of the following significance criteria based on Appendix G of the California Environmental Quality Act (CEQA) Guidelines (14 CCR 15000 et seq.). It was concluded in the Initial Study that there was no impact for the following significance criterion. Therefore, the following significance criterion is not included as part of this EIR:

A. Would the project physically divide an established community?

   The significance criteria used to evaluate the Project impacts to land use and planning are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to land use and planning would occur if the project would:

B. Conflict with any applicable land use plan, policy, or regulation of an agency (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

C. Conflict with any applicable habitat conservation plan or natural community conservation plan.

4.9.4 Impacts Analysis

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?

Less Than Significant Impact. The Project would not result in 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, as further discussed below.

Town of Apple Valley Land Use Plans, Policies, and Regulations

General Plan

According to the Town's General Plan, the land use designation for the Project site is Regional Commercial (C-R) Warehouse Distribution Regional Commercial Overlay (I-N). Since the Project site is within this designation, the proposed warehouse facility is an allowable use under the existing general plan land use designation. As such, the proposed Project would be consistent with applicable land use policies and regulations, and impacts related to consistency with the Town's General Plan would be less than significant.

The Project would vacate a portion of Apple Valley Road that extends into the southern portion of the Project site and re-align Apple Valley Road to the eastern edge of the Project site. Additionally, Norco Street is classified as a Major Road per the Town of Apple Valley General Plan Circulation Element. As part of the Project, Norco Street is proposed to be reclassified from a Major Road to a Collector, along the Project frontage. The classification of roadways does not relate to any General Plan policies that were adopted for the purpose of mitigating or avoiding an environmental impact and therefore does not require further analysis here. For additional information on transportation analysis, please refer to Section 4.13 and Appendix J. The proposed General Plan Amendment would modify the General Plan Circulation Element and eliminate the potential inconsistency between the Project

and the General Plan Circulation Element with regard to Apple Valley Road and Norco Street. The proposed modification would facilitate efficient circulation in the Project vicinity. Impacts to the environment associated with the Project's proposed General Plan Amendment are evaluated throughout this Draft 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 General Plan Circulation Element, beyond what is already evaluated and disclosed by this EIR. Table 4.9-1 provides an analysis of the Project's potential to conflict with specific policies and programs of the General Plan.

Table 4.9-1. Analysis of the Project's Consistency with the Town of Apple Valley General Plan

Policy/Program	Project Applicable Components	Consistency
Land Use Element		
Goal 1. The Town shall respect its desert environment.		
Policy 1.A. The Town will require low water use through drought-tolerant and native desert plants for landscaping.	The Project's landscaping would include a mixture of drought-tolerant trees, shrubs, and groundcover, including up to 57 western Joshua Trees currently on the Project site. The Project's landscaping plan will be reviewed by the Town for compliance with Town policies and includes plantings that are drought-tolerant, native species and would be low-water-use plantings that would be watered using drip irrigation, as described in Chapter 3, Project Description, and the water supply assessment (WSA) prepared for the Project (Appendix H-3).	**Consistent**
Program 1.A.2. Development proposals shall be subject to the requirements of the Town's Native Plant Protection Ordinance.	The Project site contains plants that are protected by the Town's Plant Protection and Management Policy (Municipal Code Chapter 9.76), including Joshua trees. The Project requires an application for removal of all protected plants; this would include a Joshua Tree Preservation, Protection, and Relocation Plan and Desert Native Plant Relocation Plan prepared by a qualified western Joshua tree and native desert plant expert(s). A Joshua Tree Preservation, Protection, and Relocation Plan and Desert Native Plant Relocation Plan is included in Appendix C-1.	**Consistent**
Policy 1.B. New development shall be designed to minimize grading, and avoid mass grading to the greatest extent possible.	Grading is proposed to occur within the entire approximately 178-acre Project site and within the 22.4-acre off-site improvement area. The Project's grading plan would be reviewed by the Town to ensure excessive grading is not proposed.	**Consistent**
Policy 1.D. Areas of biological or aesthetic significance shall be protected from development.	As discussed in Section 4.1, Aesthetics, the Project site is not identified as an "area of aesthetic significance" that warrants protection from development and would result in less-than-significant impacts related to degradation of existing visual character or quality, conflicts with	**Consistent**

Table 4.9-1. Analysis of the Project's Consistency with the Town of Apple Valley General Plan

Policy/Program	Project Applicable Components	Consistency
	applicable zoning or other regulations governing scenic quality, and light and glare. As discussed in Section 4.3, Biological Resources, the Project site is not identified as an "area of biological significance," but this environmental impact report (EIR) includes mitigation measures to address potential Project impacts on special-status plant species and special-status wildlife.	
Goal 2. A well planned, orderly development pattern that enhances community values, and assures development of adequate infrastructure.		
Policy 2.B. All new development and redevelopment proposals shall be required to install all required infrastructure, including roadways and utilities, and shall have complied with requirements for public services prior to occupancy of the project.	As described in Chapter 3, Project Description, the Project would include installation of all utility infrastructure needed to serve the Project. The Town will review and approve the water and sewer infrastructure before the installation of all utility infrastructure. The Project would also include off-site roadway improvements to facilitate adequate access to the site as well as on-site circulation, provide sufficient site access for both passenger vehicles and trucks, and ensure efficient off-site circulation on nearby roadway facilities. In addition, the Project would comply with all requirements for public services. As indicated in the initial study (Appendix A), the Project would not induce substantial population growth, which would cause a substantial increase in demand for police, school services, and parks. The Project would be required to pay all applicable Development Impact Fees to the Town, which include fees for public services including fire services, government facilities, parks, sanitary sewer facilities, law enforcement facilities, schools, and storm drainage facilities, among others.	**Consistent**
Policy 2.C. The Town shall require quality design in all development and redevelopment proposals and shall encourage the enhancement of existing development.	The design of the proposed warehouse buildings will be reviewed by Town staff for compatibility with the community as part of the discretionary Development Permit Review. Title 9 of the Development Code provides in-depth information regarding design standards and guidelines for industrial development. In accordance with the Development Code, all setback areas are required to be landscaped, and building orientation, siting, and entrances are required to be designed to minimize conflicts with the surrounding visual environment.	**Consistent**

Table 4.9-1. Analysis of the Project's Consistency with the Town of Apple Valley General Plan

Policy/Program	Project Applicable Components	Consistency
Goal 3. Minimal impact to existing neighborhoods.		
Policy 3.A. The Town will support measures that buffer both new and established residences from commercial, industrial, and agricultural uses.	The Project site is designated for regional commercial and warehouse uses, per the Town's zoning ordinance. The Project vicinity contains vacant land and scattered development. As demonstrated in Table 4.1-2 in Section 4.1, Aesthetics, the Project would comply with the applicable development standards contained in the Town's zoning ordinance, including requirements for setbacks, building coverage, and landscaping. These design standards help adjacent land uses to be visually consistent with one another and their surroundings and reduce the potential for conflicts due to noise, lights, odors, etc.	**Consistent**
Goal 7. Industrial development which supports a broad-based economy, and encourages the jobs-housing balance.		
Policy 7.A. Industrial development shall be permitted only in areas with provisions for adequate circulation, utilities, infrastructure, and public services.	As indicated above, the Project is located in an area designated for regional commercial and warehouse uses and would include roadway and utility improvements to serve the Project and ensure adequate circulation and infrastructure. Furthermore, while the Project would not have a significant impact on public services as described in Section 4.12, Public Services, the Project would be subject to payment of all the Town's applicable Development Impact Fees related to public services.	**Consistent**
Program 7.A.1. Industrial development projects will be required to extend adequate infrastructure, utilities, and public services prior to occupancy.	As previously discussed, the Project would include extension of adequate infrastructure for roadways and utilities, including improvements to off-site infrastructure, and would be subject to applicable Development Impact Fees pertaining to public services.	**Consistent**
Goal 8. Adequate public facilities to meet the needs of the Town's residents, businesses and visitors.		
Policy 8.A. The Town shall coordinate with all public service providers to assure that adequate services are available to meet the demands of growth in Town.	As described in the initial study (Appendix A) and Section 4.12, Public Services, the Project would not induce substantial population growth and therefore would not result in a substantial increase in demand for police protection services, schools, or use of existing parks or other public facilities in the Town. Furthermore, the Project would be required to pay all applicable Development Impact Fees, which include fees for public services, including fire services, government facilities, parks, sanitary sewer facilities, law enforcement facilities,	**Consistent**

Table 4.9-1. Analysis of the Project's Consistency with the Town of Apple Valley General Plan

Policy/Program	Project Applicable Components	Consistency
	schools, and storm drainage facilities, among others.	
Program 8.A.1. The Town shall coordinate with public and private providers responsible for parks, schools, fire, water, health, sanitary sewer, storm drainage, transit, and solid waste, and transmit development plans to these providers as part of the development review process.	The Town's Public Works Department is responsible for the maintenance of the Town's infrastructure. The Department reviews Project plans to ensure utilities are adequately sized to support the Project and that the Town's existing infrastructure has capacity to handle additional Project demand. The Department would coordinate with Liberty Utilities, the company providing domestic water to the Project, to confirm it can serve the Project. All other utilities would be provided by the Town.	**Consistent**
Circulation Element		
Goal. The Town shall continue to maintain and expand a safe and efficient circulation and transportation system.		
Policy 1.C. Sidewalks shall be provided on Local Streets of 60 feet in width and on all roadways 88 feet wide or wider. In Rural Residential land use areas designated pathways may be provided as an alternate to sidewalks.	The Project site is located in an undeveloped area of the Town, with limited pedestrian and bicycle facilities provided. No pedestrian facilities, including curbs and sidewalks, are present along street frontages surrounding the Project site, as no development currently exists. The Project would include construction of pedestrian facilities (e.g., bike lanes, sidewalks, curbs, and gutters) along Project frontages, including Outer Highway 15, Norco Road, Apple Valley Road, and Falchion Road, as required the Apple Valley General Plan (2009).	**Consistent**
Policy 1.D. Traffic calming devices shall be integrated into all Town streets to the greatest extent possible.	All roadway improvements identified in Appendix J, whether located on or off site, would be designed and constructed in accordance with all applicable state and local roadway standards and practices. As the Project continues through design review, detailed roadway improvements (including any traffic-calming measures) would continue to be developed in coordination with the Town. These improvements would be overseen by the Town and their qualified traffic engineers. This approach would ensure compliance with all applicable roadway design requirements.	**Consistent**
Policy 1.H. New development proposals shall pay their fair share for the improvement of street within and surrounding their projects on which they have an impact, including roadways, bridges, and traffic signals.	The Project would be required to pay all applicable Development Impact Fees to the Town, which include fees that fund street improvements and public infrastructure. The Project Applicant will pay their fair share for the improvement of streets that surround the Project. Also, as discussed under Policy 1.C, the	**Consistent**

Table 4.9-1. Analysis of the Project's Consistency with the Town of Apple Valley General Plan

Policy/Program	Project Applicable Components	Consistency
	Project includes the construction of off-site improvements, including roadway and pedestrian improvements along the Project frontage.	
Program 1.H.1. The Town shall require the payment of developer impact fees as appropriate.	The Project Applicant will pay all required fees in compliance with the Town's Development Impact Fees.	**Consistent**
Policy 1.I. Pedestrian access shall be preserved and enhanced.	As discussed under Policy 1.C, the Project includes the construction of pedestrian facilities (e.g., bike lanes, sidewalks, curbs, and gutters) along Project frontages as required by the Apple Valley General Plan (2009), including Outer Highway 15, Norco Road, Apple Valley Road, and Falchion Road. These frontages currently do not have pedestrian facilities; therefore, access would be enhanced.	**Consistent**
Program 1.I.1. All development and redevelopment proposals shall include enhanced sidewalk, pedestrian walkway, lighting and landscaping designs and assure connections to existing and planned sidewalks and trails except in rural residential land use areas where pathways may be provided as an alternative to sidewalks.	The Project site is located in a mostly undeveloped area of the Town. The Project would include construction of pedestrian facilities (e.g., bike lanes, sidewalk, curbs, and gutters) along Project frontages as required by the Apple Valley General Plan (2009), including Outer Highway 15, Norco Road, Apple Valley Road, and Falchion Road. The Project would include on-site lighting throughout the site, including pole-mounted parking lot lights and lights along building exteriors. Also, as described in Section 4.1, Aesthetics, the Project includes landscaping that would provide natural elements that would not contrast with the surrounding desert landscape.	**Consistent**
Program 1.J.1. New development proposals shall be required to construct bicycle lanes consistent with this Element in conjunction with off-site improvements.	Exhibit II-10 of the Circulation Element illustrates a network of bicycle lanes/paths planned by the Town. The Project would include construction of bike lanes along Project frontages as required by the Apple Valley General Plan (2009), including Norco Road, Apple Valley Road, and Falchion Road.	**Consistent**
Water Resources Element		
Goal. A dependable supply of safe, high-quality domestic water to meet the needs of all segments of the community.		
Policy 1.B. To ensure that overall and per capita water demand from new development is reduced, the Town shall continue to require the use of	As previously discussed, the Project includes a conceptual landscaping plan, which has been reviewed by the Town for compliance with Town policies. The landscape plan includes plantings that are drought-tolerant and would be low-	**Consistent**

Table 4.9-1. Analysis of the Project's Consistency with the Town of Apple Valley General Plan

Policy/Program	Project Applicable Components	Consistency
drought-tolerant, low water consuming landscaping, intelligent irrigation controllers, and other water-conserving strategies and technologies in irrigated areas.	water-use plantings that would be watered using drip irrigation, as described in Chapter 3 and the WSA prepared for the Project (Appendix H-3).	
Program 1.B.1. The Town shall, by requiring the use of native and other drought-tolerant planting materials, and efficient irrigation systems, continue to implement its Water Conservation/Landscaping Regulations.	As previously discussed, the Project's proposed landscaping plan includes plantings that are drought-tolerant and would be low-water-use plantings that would be watered using drip irrigation consistent with this policy.	**Consistent**
Program 1.C.2. Continue to implement the Town's Water Conservation/Landscaping Regulations to optimize conservation and comply with State Assembly Bill 325 (AB 325), by requiring the use of native and other drought-tolerant planting materials and efficient irrigation systems.	See response to Policy 1.A of the Land Use Element.	**Consistent**
Policy 1.D. To the greatest extent practicable, the Town shall direct new development to provide irrigation systems that are able to utilize reclaimed water, when available, for use in common area and streetscape landscaping.	As discussed in Section 4.8, Hydrology and Water Quality, the Project would be served by Liberty Utilities; groundwater is the only source of water supply for the Liberty Utilities' distribution system and the only source proposed for the Project. Therefore, utilization of reclaimed water is not practicable because it is not available.	**Consistent**
Policy 1.E. To the greatest extent practicable, the Town shall continue to require new development to connect to the community sewer system. Where sewer service is not available and lots are created of less than one (1) acre in size, the Town shall require the installation of "dry sewers" and the payment of connection fees for future sewer main extensions.	The Project would include connections to the Town's sanitary sewer infrastructure.	**Consistent**
Program 1.F.1. Require that the development and maintenance of project-specific on-site stormwater retention/detention basins implements the NPDES	The Project design, construction, and operation of the components described above would be completed in accordance with the National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4)	**Consistent**

Table 4.9-1. Analysis of the Project's Consistency with the Town of Apple Valley General Plan

Policy/Program	Project Applicable Components	Consistency
program, enhances groundwater recharge, complements regional flood control facilities, and addresses applicable community design policies subject to all applicable regulations, standards, and guidelines.	permit and the Mojave River Watershed Technical Guidance Document for Water Quality Management Plans, with the goal of reducing the number of pollutants in stormwater and urban runoff. As described in Section 4.8, Hydrology and Water Quality, four underground Stormtech infiltration systems will capture stormwater runoff consistent with the NPDES MS4 permit.	
Policy 1.H. The Town shall confer with appropriate water agencies and purveyors, as necessary, to assure adequate review and mitigation of potential impacts of proposed development on local water resources.	A WSA was prepared for the Project that evaluated if adequate water supplies would be available to serve the water demand of the Project. The WSA stated that the developer is currently working to annex the Project site into the Liberty Utilities' service area (Appendix H-3).	**Consistent**
Open Space and Conservation Element		
Goal 1. The Town will conserve and protect natural resources in perpetuity.		
Program 1.A.3. New developments will be required to utilize measures designed to conserve water resources including low flow irrigation and plumbing fixtures.	The Project is required by state law to comply with California's Green Building Standards (CALGreen), which includes mandatory building standards aimed at reducing water use.	**Consistent**
Goal 2. The Town shall encourage the preservation of significant native trees, native vegetation, landforms and wildlife habitat.		
Policy 2.A. The Town shall seek to reduce soil erosion caused by wind and water.	As described in Section 4.8, Hydrology and Water Quality, Project construction would result in earthwork that could expose soils and make them susceptible to wind and water erosion. However, pursuant to NPDES Construction General Permit requirements, construction activities would be required to implement best management practices (BMPs) as part of a stormwater pollution prevention plan (SWPPP) that would include erosion control measures for all exposed soils. Once developed, the buildings, paved surfaces, other on-site improvements, and drainage control features would stabilize and help retain on-site soils. The remaining portions of the Project site containing pervious surfaces would primarily consist of landscaped areas including a mix of trees, shrubs, plants, and groundcover that would help retain on-site soils while preventing wind and water erosion from occurring.	**Consistent**

Table 4.9-1. Analysis of the Project's Consistency with the Town of Apple Valley General Plan

Policy/Program	Project Applicable Components	Consistency
Policy 2.C. The Town will encourage the planting and preservation of native species of trees and plants to enhance the environment.	The Project would include plantings that are drought-tolerant and would be low-water-use plantings that would be watered using drip irrigation, as described in the WSA prepared for the Project (Appendix H-3) and in Chapter 3, Project Description. Additionally, the Project would comply with Chapter 9.76 of the Apple Valley Municipal Code, which contains the Town's Protected Plant Policies. This chapter establishes policies governing the removal of protected plants. The Project would require a native tree or plant removal permit in conjunction, which is required to be approved by the Town Review Authority (County Certified Plant Expert, Planning Commission, or Town Council) indicating exactly which trees or plants are authorized to be removed.	**Consistent**
Goal 3. The Town will encourage and support the preservation of historic and cultural resources.		
Policy 3.B. The Town will require that archaeological, cultural, and historical resources are preserved or salvaged if threatened by new development.	As described in Section 4.4, Cultural, Tribal Cultural, and Paleontological Resources, no known unique archaeological resources, historical resources of an archaeological nature, or tribal cultural resources are located on the Project site. However, this EIR has identified mitigation measures (see Mitigation Measure [MM] CUL-1 through MM-CUL-3 in Section 4.4.5) to protect such resources in the event of inadvertent discovery of yet unknown resources during Project construction.	**Consistent**
Program 3.B.1. The Town will require that prehistoric and historic archaeological resources, and historic structures, be inventoried in identified areas and evaluated according to CEQA regulations and appropriate California Office of Historic Preservation guidelines prior to the adoption of mitigation measures and the acceptance of conditions of approval and permit approvals.	As described in Section 4.4, Cultural, Tribal Cultural, and Paleontological Resources, the Project would have a less-than-significant impact with mitigation incorporated on historical resources because the Project site does not include any historical resources listed or eligible for listing in the California Register of Historical Resources, or included in a local register of historic resources, or identified as significant in a historical resources survey that would be considered historically or culturally significant for the purposes of CEQA. The Project site does not include any built environment resources (i.e., buildings, canals) and is unlikely to contain any unknown historical resources. However, it is possible for intact, buried prehistoric archaeological deposits, including unique archaeological resources, to exist within native soils on the Project site. Thus, the EIR has	**Consistent**

Table 4.9-1. Analysis of the Project's Consistency with the Town of Apple Valley General Plan

Policy/Program	Project Applicable Components	Consistency
	identified mitigation measures (see MM-CUL-1 through MM-CUL-3 in Section 4.4.5) to protect such resources in the event of inadvertent discovery of yet unknown resources during Project construction.	
Biological Resources Element		
Goal 1. Establish a pattern of community development that supports a functional, productive, and balanced relationship between the manmade environment and the natural environment.		
Policy 1.A. Habitat for endangered, threatened, and sensitive species shall continue to be protected and preserved as Open Space by the Town.	As described in Section 4.3, Biological Resources, during the focused survey burrowing owl were not observed; however, there were open scrub areas that may support burrowing owls. Therefore, the Project has implemented a burrowing owl relocation plan, included as Appendix C-2.	**Consistent**
Program 1.A.6. Biological resource surveys and assessments shall continue to be required by Town staff as part of the application process for new development especially within or adjacent to linkage corridors or, special survey areas and potential jurisdictional areas.	An existing conditions report (Appendix C-1) was performed for the Project, which provides the results of biological surveys including a jurisdictional delineation for on-site as well as off-site improvement areas, consistent with this policy.	**Consistent**
Policy 1.B. The Town shall promote the use of native vegetation for landscaping to enhance and create viable habitat for local species.	See response to Policy 1.A of the Land Use Element.	**Consistent**
Program 1.B.1. The Town shall require developers to recover, preserve, or utilize native vegetation within the project or shall require that viable vegetation is transplanted to other appropriate sites in conformance with its Native Plant Ordinance.	The Project's landscaping plan, which is required to be reviewed by the Town for compliance with Town policies, including the Town's Native Plant Ordinance, includes native plantings.	**Consistent**
Program 1.B.2. Native and drought tolerant plant materials, including vegetation that provides or enhances habitat for local species, shall be incorporated into project landscaping and design.	See responses above under Policy 1.B and Program 1.B.1 of the Biological Resources Element.	**Consistent**

Table 4.9-1. Analysis of the Project's Consistency with the Town of Apple Valley General Plan

Policy/Program	Project Applicable Components	Consistency
Archaeological and Historic Resources Element		
Goal. That all elements of the Town's cultural heritage, including archaeological and historic sites, artifacts, traditions and other elements, shall be professionally documented, maintained, preserved, conserved and enhanced.		
Policy 1.A. Early in the planning process, the Town shall implement its obligation to identify, document and assess archaeological, historical and cultural resources that proposed development projects and other activities may affect.	Cultural resource assessments were performed for the Project (Appendix D) to determine the presence of any cultural resources and to identify the likelihood of finding any unknown resources during Project construction, consistent with this policy. As described in Section 4.4, Cultural, Tribal Cultural, and Paleontological Resources, no known unique archaeological resources, historical resources of an archaeological nature, or tribal cultural resources are located on the Project site.	**Consistent**
Program 1.A.1. Where proposed development or land uses have the potential to adversely impact sensitive cultural resources, it shall be subject to evaluation by a qualified specialist, comprehensive Phase I studies and appropriate mitigation measures shall, as necessary, be incorporated into project approvals.	See response to Policy 1.A of the Archaeological and Historic Resources Element. In addition, the EIR has identified mitigation measures (see MM-CUL-1 through MM-CUL-3 in Section 4.4.5) to protect such resources in the event of inadvertent discovery of yet unknown resources during Project construction.	**Consistent**
Air Quality Element		
Goal. To preserve and enhance local and regional air quality.		
Policy 1.D. All proposals for development activities within the Town shall be reviewed for their potential to adversely impact local and regional air quality and shall be required to mitigate any significant impacts.	See Section 4.2, Air Quality, for further discussion.	**Consistent**
Program 1.D.1. All projects that have the potential to generate significant levels of air pollution shall be required to provide detailed impact analyses and design mitigation measures that incorporate the most advanced technological methods available. Prior to the issuance of grading or demolition permits, the Town shall review and determine the effectiveness of proposed	See Section 4.2, Air Quality, for further discussion.	**Consistent**

Table 4.9-1. Analysis of the Project's Consistency with the Town of Apple Valley General Plan

Policy/Program	Project Applicable Components	Consistency
mitigation measures and set forth additional measures as needed.		
Policy 1.E. The use of clean and/or renewable alternative energy sources for transportation, heating and cooling, and construction shall be encouraged by the Town.	See Section 4.5, Energy, for further discussion.	**Consistent**
Program 1.F.1. To minimize vehicle miles traveled, the Town shall pursue a balance of employment and housing opportunities that encourage pedestrian and other non-motorized transportation alternatives.	See Section 4.13, Transportation, for further discussion.	**Consistent**
Program 1.F.4. Shade trees with non-damaging root systems shall be planted in medians, within street easement, and parking lots as appropriate, to cool the asphalt and reduce Reactive Organic Compounds (ROC) and Volatile Organic Compounds (VOC) generated by streets and parking lots. A list of permitted trees with non-damaging root systems shall be developed.	As discussed in Chapter 3, Project Description, the Project would use drought-tolerant plants and shade trees as indicated in the Project's landscape plan. Specifically, shade trees would be provided throughout the Project site so that at least 30% of the automobile parking areas would be shaded.	**Consistent**
Policy 1.G. Future residential, commercial, and industrial development and remodeling projects, shall strive to exceed Title 24 standards by 15% and/or achieve LEED certification or similar performance standards for buildings.	The Project is required by state law to comply with Title 24 (CALGreen) building standards.	**Consistent**
Policy 1.H. Residential, commercial, and industrial projects that reduce vehicle miles traveled (VMTs) by providing alternative transportation options, home office and live/work spaces, and/or promote employees living close to work are preferred.	See Section 4.13, Transportation, for further discussion.	**Consistent**

Table 4.9-1. Analysis of the Project's Consistency with the Town of Apple Valley General Plan

Policy/Program	Project Applicable Components	Consistency
Policy 1.J. The Town shall promote the use of solar and alternative energies and give priority to projects that include the use of solar cells and other alternative energy sources in their designs.	See Section 4.6, Greenhouse Gas, for further discussion.	**Consistent**
Energy and Mineral Resources Element		
Goal. Assure the long-term availability and affordability of energy and mineral resources through conservative consumption, efficient use and environmentally sensitive management practices.		
Policy 1.A. The community and all economic sectors shall be urged to conserve energy, with particular focus on the inclusion of energy saving measures in transport systems, and in the planning and construction of urban uses.	See responses to Policy 1.E and Policy 1.G of the Energy and Air Quality Element, above. The Project would also be required by state law to comply with CALGreen building standards.	**Consistent**
Policy 1.B. Promote building design and construction that integrates alternative energy systems, including but not limited to solar, thermal, photovoltaics and other clean energy systems.	See Section 4.4, Greenhouse Gas, and Chapter 4.5, Energy, for further discussion.	**Consistent**
Program 1.B.1. Building regulations and guidelines will facilitate the safe and efficient installation of alternative energy systems in new and existing buildings. The Town will promote the use of such systems to residents, businesses, and the building industry by disseminating information on commercially available conservation technologies, solar, thermal and photovoltaic energy systems, fuel cell and other alternative energy resources.	See response to Policy 1.B of the Energy and Mineral Resources Element.	**Consistent**
Program 1.B.3. The Town shall encourage building design that takes advantage of shade, prevailing winds and sun screens. Energy efficient lighting and installation of colored "cool roofs", cool pavement and strategically planted shade trees	The Project includes the planting of drought-tolerant trees, as indicated in the Project's landscaping plan, to reduce the urban heat island effect. Specifically, shade trees would be provided throughout the Project site so that at least 30% of the automobile parking areas would be shaded.	**Consistent**

Table 4.9-1. Analysis of the Project's Consistency with the Town of Apple Valley General Plan

Policy/Program	Project Applicable Components	Consistency
should also be encouraged. The Town shall support the installation of solar panels on carports and over parking areas where appropriate.		
Program 1.E.3. The Town shall require the recycling of mineral-based construction materials, including asphalt, concrete, gypsum and similar materials, and the use of recycled materials in new construction.	The Project would comply with Section 5.408.1 of the CALGreen Code, Part 11, which requires a minimum of 65% of the nonhazardous construction and demolition waste be recycled and/or salvaged for reuse, consistent with this policy.	**Consistent**
Geotechnical Element		
Goal. The protection and safety of human life, land, and property from the effects of seismic and geotechnical hazards shall be increased.		
Policy 1.C. The Town shall require that future development avoid disturbing unique rock outcroppings within the Town boundary and Sphere of Influence.	As discussed in the initial study (Appendix A), the Project site does not contain any unique rock outcroppings.	**Consistent**
Policy 1.E. In areas identified as being susceptible to rockfall, landslide, liquefaction and/or other associated hazards as depicted in the General Plan EIR, development shall be required to prepare detailed technical analysis, which shall include mitigation measures intended to reduce potential hazards below levels of significance.	As discussed in the initial study (Appendix A), according to Exhibit III-11 of the Town's General Plan EIR (Town of Apple Valley 2009), the Project site is not located in an area identified as susceptible to slope instability, liquefaction, or other geotechnical hazards. The Project site is relatively flat and is not located adjacent to any potentially unstable topographical feature such as a hillside or riverbank.	**Consistent**
Policy 1.F. Development in areas susceptible to collapsible or expansive soils as shown in soils mapping in the General Plan EIR shall be required to conduct soil sampling and laboratory testing and to implement mitigation measures that reduce potential hazards below levels of significance.	As discussed in the initial study (Appendix A), alluvial fan sediments, composed primarily of granular soils, underlie the low-lying areas of the Town, where the Project site is located; these sediments have expansion potential ranging from very low to moderately low. Additionally, the U.S. Department of Agriculture's Web Soil Survey does not identify the Project site or surrounding area as containing clay soils, which are typically expansive (Appendix A).	**Consistent**
Flooding and Hydrology Element		
Goal. Protect lives and property from flooding hazards through a comprehensive system of flood control facilities throughout the Town.		
Program 1.A.4. As part of project	See Section 4.8, Hydrology and Water Quality,	**Consistent**

Table 4.9-1. Analysis of the Project's Consistency with the Town of Apple Valley General Plan

Policy/Program	Project Applicable Components	Consistency
development, all new development shall be required to complete on site drainage improvements at their expense.	for further discussion.	
Policy 1.D. All new development within the Town shall be required to incorporate adequate flood mitigation measures, including the adequate siting of structures located within flood plains, grading that prevents adverse drainage impacts to adjacent properties, and on-site retention of runoff.	See Section 4.8, Hydrology and Water Quality, for further discussion.	**Consistent**
Program 1.D.1. The retention of stormwater on a project site shall be enforced through the development review process and routine site inspection.	See Section 4.8, Hydrology and Water Quality, for further discussion.	**Consistent**
Noise Element		
Goal. Noise levels that are consistent with the Town's rural character and high quality of life.		
Program 1.A.2. The Town shall include noise attenuation in its development review process when development projects are proposed. Design techniques that can alleviate noise include, but are not limited to building setbacks, the installation of wall and window insulation, sound walls and earthen berms.	See Section 4.11, Noise, for further discussion.	**Consistent**
Program 1.A.3. The mechanical equipment associated with commercial and industrial development, including compactors, trash disposal areas, heating and air conditioning systems shall be located as far as practicable from adjacent sensitive receptors, or from lands designated on the Land Use map for noise sensitive uses.	See Section 4.11, Noise, for further discussion.	**Consistent**
Program 1.A.4. Minimum requirements for noise analyses for proposed development	See response to Program 1.A.2 of the Noise Element. Project analysis is supported by noise modeling consistent with the Town's	**Consistent**

Table 4.9-1. Analysis of the Project's Consistency with the Town of Apple Valley General Plan

Policy/Program	Project Applicable Components	Consistency
projects shall be developed and distributed to applicants early in the development review process. Studies shall evaluate project impacts and the effectiveness of proposed mitigation measures.	requirements.	
Program 1.A.6. Commercial and industrial projects proposed adjacent to sensitive receptors, or lands designated for sensitive receptors, including residential, school or hospital sites, shall be required to submit a noise analysis in conjunction with entitlement applications.	See response to Program 1.A.2 of the Noise Element.	**Consistent**
Hazardous and Toxic Materials Element		
Goal. Ensure that the environment and all residents, workers, and visitors are protected from exposure to hazardous materials and wastes.		
Policy 1.D. The Town shall require all business that use, store, or produce hazardous material to comply with the County's Business Plan.	The Project is required to comply with the County's Business Plan. Furthermore, any proposed handling and storage of hazardous materials are regulated by Division 20, Chapter 6.95 of the California Health and Safety Code. Under Sections 25500–25543.3, facilities handling hazardous materials are required to prepare a hazardous materials business plan (HMBP), which contains basic information on the location, type, quantity, and health risks of hazardous materials stored, used, or disposed of in the state.	**Consistent**
Program 1.D.1. As part of the development approval process, new businesses handling hazardous materials shall be required to submit a Business Plan for handing, storing, transporting, and disposing of hazardous materials and wastes.	See response to Policy 1.D of the Hazardous and Toxic Materials Element. The Project owner/operator must complete and submit a HMBP to the California Environmental Reporting System. The HMBP provides basic information necessary for use by first responders to prevent or mitigate damage to public health and safety and the environment from a release or threatened release of hazardous materials and to satisfy federal and state Community Right-To-Know laws. The HMBP contains detailed information on the inventory of hazardous materials at the facility; emergency response plans and procedures in the event of a reportable release or threatened release of a hazardous material; training for all new employees and annual training, including	**Consistent**

Table 4.9-1. Analysis of the Project's Consistency with the Town of Apple Valley General Plan

Policy/Program	Project Applicable Components	Consistency
	refresher courses, for all employees in safety procedures in the event of a release or threatened release of a hazardous material; and a site map that contains north orientation, loading areas, internal roads, adjacent streets, storm and sewer drains, access and exit points, emergency shutoffs, evacuation staging areas, hazardous material handling and storage areas, and emergency response equipment.	
Policy 1.J. Land use designations that may involve the production, storage, transportation, handling, or disposal of hazardous materials will be located at a safe distance from land uses that may be adversely impacted by such activities.	The Project site is primarily surrounded by undeveloped land. While the proposed Project activities are unlikely to involve the use of acutely hazardous materials, such activities would be at a safe distance from the rural residences outside in the Project area. Furthermore, any proposed handling and storage of hazardous materials are regulated by Division 20, Chapter 6.95 of the California Health and Safety Code. Under Sections 25500–25543.3, facilities handling hazardous materials are required to prepare an HMBP, which contains basic information on the location, type, quantity, and health risks of hazardous materials stored, used, or disposed of in the state.	**Consistent**
Water, Wastewater, and Utilities Element		
Goal. The provision of a range of water, wastewater and other utility services and facilities that is comprehensive and adequate to meets the Town's near and long-term needs in a cost-effective manner.		
Policy 1.E. The Town shall encourage and support the integration of energy conservation technologies throughout the community.	See response to Policy 1.E and Policy 1.G of the Air Quality Element. In addition, the Project would also be required by state law to comply with CALGreen building standards, which include energy saving measures.	**Consistent**
Police and Fire Protection Element		
Goal. The highest possible level of services and quality for fire and police protection to ensure the preservation and protection of the health, welfare and property for all types of development and socio-economic segments of the community.		
Policy 1.B. All proposed development shall be designed to provide unencumbered access for police, fire, and paramedic vehicles, to the satisfaction of the Sheriff's Department and the Fire Marshal.	See Section 4.13, Transportation, for further discussion.	**Consistent**
Program 1.E.1. The Fire District	The Project has been reviewed in detail by Town	**Consistent**

Table 4.9-1. Analysis of the Project's Consistency with the Town of Apple Valley General Plan

Policy/Program	Project Applicable Components	Consistency
and the Fire Marshal shall review all development proposals, and project design or conditions of approval, as appropriate, shall incorporate their input.	staff as well as the Apple Valley Fire Protection District. Staff and departments are responsible for reviewing land use applications for compliance with Town codes and regulations.	

Zoning Ordinance

The Apple Valley Zoning Ordinance classifies the Project site as being within Regional Commercial (C-R). Additionally, the Project site is located within the Warehouse Distribution Regional Commercial (I-N) Overlay, as designated on the Town's Zoning Map. Since the warehouse facility is an allowed use under the current zoning designation, development of the proposed Project would not introduce an incompatible land use in the Town. As such, the proposed Project would be consistent with applicable land use policies and regulations, and impacts related to consistency with the zoning ordinance would be less than significant.

Regional Transportation Plan/Sustainable Communities Strategy

The 2020–2045 Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS) was adopted on September 3, 2020, and presents the land use and transportation vision for the region through the year 2045, providing a long-term investment framework for addressing the region's challenges. The RTP/SCS established goals for the region and identifies transportation investments that address the region's growing population, as well as strategies to reduce traffic congestion and GHG emissions. In addition, the RTP/SCS is supported by a combination of transportation and land use strategies that help the region achieve state GHG emission reduction goals and federal Clean Air Act requirements, preserve open space areas, improve public health and roadway safety, support the region's vital goods movement industry, and utilize resources more efficiently (SCAG 2020).

Consistency with the 2020–2045 RTP/SCS goals, below, demonstrates that the Project would not conflict with the applicable goals in the RTP/SCS adopted for the purpose of avoiding or mitigating an environmental effect. Table 4.9-2 demonstrates how the Project promotes consistency with the guiding principles and policies of the RTP/SCS.

Table 4.9-2. Consistency with 2020-2045 RTP/SCS Goals

RTP/SCS Goal	Project Applicable Component(s)	Consistency
Goal 1 Encourage regional economic prosperity and global competitiveness.	The Project would involve construction of two industrial warehouse buildings. Thus, the Project would generate jobs and tax revenue for the Town and its residents. Once operational, the Project would add to the Town's business tax base and would employ many workers, helping the Town better meet its jobs/housing balance, while also providing regional commercial use that will help the Town offer a more balanced array of land uses throughout the broader Project area.	Consistent

Table 4.9-2. Consistency with 2020-2045 RTP/SCS Goals

RTP/SCS Goal	Project Applicable Component(s)	Consistency
Goal 2 Improve mobility, accessibility, reliability, and travel safety for people and goods.	The Project would include construction and operation of two industrial warehouse buildings that would be easily and efficiently accessible to I-15, which would help to facilitate regional goods movement throughout Southern California.	**Consistent**
Goal 3 Enhance the preservation, security, and resilience of the regional transportation system.	A traffic impact analysis has been prepared to determine the Project's potential effect on the regional and local circulation system. Improvements to adjacent roadway facilities that are identified in the traffic impact analysis will be implemented as part of the Project (and will be made a condition of Project approval), as to accommodate for street capacity and effectiveness of the regional circulation system during operation of the Project. Further, the Town has created its own local Development Impact Fee (DIF) program to impose and collect fees from new residential, commercial and industrial development for the purpose of funding roadways and intersections necessary to accommodate Town growth. As such, the Project Applicant will be subject to the Town's DIF fee program and will pay the requisite Town DIF fees at the rates then in effect.	**Consistent**
Goal 4 Increase person and goods movement and travel choices within the transportation system.	The Project would include construction and operation of two industrial/warehouse buildings, which would be easily and efficiently accessible to I-15 and would help to facilitate regional goods movement throughout Southern California.	**Consistent**
Goal 5 Reduce greenhouse gas emissions and improve air quality.	The Project would involve development of an industrial use that inherently involves the emission of GHG and air contaminant emissions. However, the Project would incorporate all feasible mitigation measures to reduce impacts to air quality and GHG emissions. In addition, according to the Southern California Association of Governments Comprehensive Regional Goods Movement Plan and Implementation Strategy, the region will run out of suitably zoned vacant land designated for warehouse facilities in or around 2028. Thus, the Project would meet the growing demand for warehousing space, and would do so in an area that is proximate to regional highways (I-15), thereby reducing the need for longer distance trips, which could result in additional air pollutant and GHG emissions. Additionally, the Project would employ many new workers, helping the Town better meet its jobs/housing balance, which should shorten commute distances of Town residents who choose to work on the Project site, which would have a direct positive effect on tailpipe GHG and air contaminant emissions. Section 4.2 and Section 4.6 include discussions of air quality and greenhouse gas impacts and feasible mitigation measures to reduce emissions to the extent possible.	**Consistent**

Table 4.9-2. Consistency with 2020-2045 RTP/SCS Goals

RTP/SCS Goal	Project Applicable Component(s)	Consistency
Goal 6 Support healthy and equitable communities.	The Project would involve development of an industrial use that inherently involves the emission of GHG and air contaminant emissions. However, no sensitive land uses occur within the immediate vicinity of the Project site, and the Project is an allowed use within the C-R (I-N) zoning district. Further, the Project would incorporate all feasible mitigation measures to reduce impacts to air quality and GHG emissions. As discussed in Section 4.2, Air Quality, the Project would result in a significant and unavoidable impact to sensitive receptors because operation of the Project could result in exceedances of MDAQMD significance thresholds for NO_x and PM_{10}. Implementation of MM-AQ-2 would reduce impacts to the extent possible; however, impacts would remain significant and unavoidable. Additionally, as discussed in Section 4.2, health risk assessments were prepared for the Project, which concluded that the Project would not have a significant adverse effect on the health of the local community. MM-AQ-3 would prohibit cold storage unless additional environmental review, including a health risk assessment, is conducted. According to the Southern California Association of Governments Comprehensive Regional Goods Movement Plan and Implementation Strategy, the region will run out of suitably zoned vacant land designated for warehouse facilities in or around 2028. Thus, the Project would meet the growing demand warehousing space, and would do so in an area that is proximate to regional highways (I-15), thereby reducing the need for longer distance trips, which could result in additional air pollutant and GHG emissions. Development of the Project at the Project site would provide quick and efficient access to I-15, thereby eliminating the need for truck traffic to take longer routes through residential or commercial/retail areas. The Project would also include a number of components that are designed to reduce energy use, such as incorporating energy efficiency design features in compliance with CALGreen standards. By incorporating these measures, the Project would minimize its potential environmental effects on surrounding sensitive receptors to the maximum extent practicable. Thus, the Project would be consistent with this goal.	Consistent
Goal 7 Adapt to a changing climate and support an integrated regional development pattern and transportation network.	As climate change continues to increase the number of instances of disruption to local and regional systems, it will become increasingly more urgent for local jurisdictions to employ strategies to reduce their individual contributions. The Project would involve development of an industrial use that inherently involves the emission of GHG and air	Consistent

Table 4.9-2. Consistency with 2020-2045 RTP/SCS Goals

RTP/SCS Goal	Project Applicable Component(s)	Consistency
	contaminant emissions. However, the Project would incorporate all feasible mitigation measures to reduce impacts to air quality and GHG emissions to the maximum extent practicable as discussed in Sections 4.2 and 4.6. In addition, according to the Southern California Association of Governments Comprehensive Regional Goods Movement Plan and Implementation Strategy, the region will run out of suitably zoned vacant land designated for warehouse facilities in or around 2028. Thus, the Project would meet the growing demand warehousing space, and would do so in an area that is proximate to regional highways (I-15), thereby reducing the need for longer distance trips, which could result in additional GHG emissions.	
Goal 8 Leverage new transportation technologies and data-driven solutions that result in more efficient travel.	Development of the Project at the Project site would provide quick and efficient access to I-15, thereby eliminating the need for truck traffic to take longer routes through residential or commercial/retail areas. Project-related trucks would travel on the County and Town of Apple Valley designated truck routes, including Outer Highway 15 to I-15 at Stoddard Wells Road and on Apple Valley Road to I-15 at Quarry Road. In addition, according to the Southern California Association of Governments Comprehensive Regional Goods Movement Plan and Implementation Strategy, the region will run out of suitably zoned vacant land designated for warehouse facilities in or around 2028. Thus, the Project would meet the growing demand warehousing space, and would do so in an area that is proximate to regional highways (I-15), thereby reducing the need for longer distance trips, which could result in additional air pollutant and GHG emissions.	Consistent
Goal 9 Encourage development of diverse housing types in areas that are supported by multiple transportation options.	The Project site is not zoned for housing, but rather for regional commercial with warehouse uses. Thus, this goal is not applicable.	Not Applicable
Goal 10 Promote conservation of natural and agricultural lands and restoration of habitats.	The Project would be located on an area zoned for regional commercial with warehouse uses. The Project site does not support agriculture. Mitigation measures have been outlined in this EIR to offset potentially significant impacts to suitable on-site habitat, sensitive plant and wildlife species, and Joshua Tree Woodland. See Section 4.3, Biological Resources, for further detail.	Consistent

As described above, the Project would be consistent with the applicable goals and policies set forth by the General Plan, the Town's Municipal Code, and SCAG in regard to the RTP/SCS. Therefore, impacts would be less than significant.

Threshold C: Would the project conflict result in cumulatively considerable impacts with regard to land use?

Less Than Significant Impact. Implementation of the proposed Project, combined with the development of ongoing projects and future industrial projects in the greater project area, could potentially result in cumulative impacts associated with land use and planning if these projects collectively conflict with either existing land uses or other future projects in the area. The anticipated impacts of the Project in conjunction with cumulative development in the area of the Project would result in the development of vacant land. However, potential land use impacts require evaluation on a case-by-case basis because of the interactive effects of a specific development and its immediate environment. As described above, the proposed Project would be consistent with the goals and policies of the Apple Valley General Plan. In addition, the proposed Project would be an allowable use and would not conflict with the Town's land use or zoning classifications. Therefore, the Project would be consistent with the goals and policies of the Apple Valley General Plan and the Zoning Ordinance and would therefore not contribute to a cumulatively considerable impact regarding land use.

Furthermore, all related projects would be required to undergo environmental review on a case-by-case basis in accordance with the requirements of CEQA. Each related project would also be required to demonstrate consistency with all applicable planning documents governing the Project site, including the Apple Valley General Plan and the Zoning Ordinance, and any applicable Specific Plans. Should potential impacts be identified, appropriate mitigation would be prescribed that would likely reduce potential impacts to less-than-significant levels. Therefore, the proposed Project would not result in a cumulatively considerable impact related to land use.

4.9.5 Mitigation Measures and Level of Significance after Mitigation

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?

The Project would result in less-than-significant impacts with regard to a conflict with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. No mitigation is required.

Threshold C: Would the Project result in cumulatively considerable impacts with regard to land use?

The Project would result in less-than-significant cumulative impacts with regard to a land use. No mitigation is required.

4.9.6 References Cited

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4.10 Mineral Resources

This section describes the existing conditions of the Inland Empire North Logistics Center Apple Valley Project (Project) site and vicinity related to mineral resources and identifies associated regulatory requirements, thresholds of significance, methodology, Project-level and cumulative impact analyses, mitigation measures, level of significance before and after mitigation, and references. Information contained in this section is based on publicly available data and reports from the California Department of Conservation (DOC) and the County of San Bernardino, and the following report prepared for the Project:

Other sources consulted are listed in Section 4.10.6, References Cited.

4.10.1 Existing Conditions

This section describes the existing conditions at the Project site and vicinity related to mineral resources and identifies the mineral resources that could be affected by Project implementation.

Regional Setting

Mineral Resource Potential

As mandated by the Surface Mining and Reclamation Act of 1975 (SMARA), the California State Mining and Geology Board classifies California mineral resources with the Mineral Resource Zones (MRZs) system. These zones were established based on the presence or absence of significant sand and gravel deposits and crushed rock source areas (i.e., products used in the production of cement). The following guidelines are presented in the Town of Apple Valley's General Plan mineral land classification for the town (Town of Apple Valley 2009):

- **MRZ-1 –** Areas where adequate geologic information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.
- **MRZ-2a –** Areas underlain by mineral deposits where geological data indicate that significant measured or indicated resources are present. MRZ-2 is divided on the basis of both degree of knowledge and economic factors. Areas classified MRZ-2a contain discovered mineral deposits that are either measured or indicated reserves as determined by such evidence as drilling records, sample analysis, surface exposure, and mine information. Land included in the MRZ-2a category is of prime importance because it contains known economic mineral deposits.
- **MRZ-2b –** Areas underlain by mineral deposits where geologic information indicates that significant inferred resources are present. For this report, areas classified MRZ-2b contain discovered mineral deposits that are significant inferred resources as determined by their lateral extension from proven deposits or their similarity to proven deposits. Further exploration work could result in upgrading areas classified MRZ-2b to MRZ-2a.
- **MRZ-3a –** Areas containing known mineral occurrences of undetermined mineral resource significance. Further exploration work within these areas could result in the reclassification of specific localities into MRZ-2a or MRZ-2b categories. MRZ-3 is divided on the basis of knowledge of economic characteristics of the resources.
- **MRZ-3b –** Areas containing inferred mineral occurrences of undetermined mineral resource significance. Land classified MRZ-3b represents areas in geologic settings that appear to be favorable environments

for the occurrence of specific mineral deposits. Further exploration work could result in the reclassification of all or part of these areas into the MRZ-2a or MRZ-2b categories.

- **MRZ-4 –** Areas of no known mineral occurrences where geologic information does not rule out either the presence or absence of significant mineral resources.

Local Setting

Current Site Uses

The approximately 178-acre Project site consists of predominantly vacant and undeveloped land, as well as disturbed land and unpaved roads. Approximately 20 acres at the northeast portion of the Project site are currently used for stockpiling of soil and similar type materials from off-site mining activities; a metal storage structure associated with the stockpiling activities is located within the stockpiling area. Stockpiling activities would cease upon construction of the Project, and the storage structure would be removed from the site. No known extraction activities have occurred on the Project site.

Mineral Resource Potential of Project Site

According to the Mineral Land Classification of the Town of Apple Valley General Plan Mineral Resources Zone North / Mines and Prospects (Town of Apple Valley 2009) the Project site is identified as MRZ-3a.

The Project site is situated in close proximity to an MRZ-2a area, which is designated as a mineral resource zone. Specifically, the site is located near Map Number 267, which represents Scheerer Quarry Limestone, and Map Number 270, which represents Piercy Limestone.

4.10.2 Relevant Regulations, Plans, Policies, and Ordinances

Federal

There are no applicable federal policies or regulations related to mineral resources.

State

Surface Mining and Reclamation Act (SMARA): California Public Resources Code, Sections 2710 et seq.

SMARA is the primary regulator of onshore surface mining in the state. SMARA delegates specific regulatory authority to local jurisdictions. The act requires the State Geologist (California Geological Survey [CGS]) to identify all mineral deposits within the state and to identify any MRZs (i.e., MRZ-1 through MRZ-4) present. The distinctions between MRZs 1 through 4 are detailed in Section 4.10.1, Existing Conditions, above. Local jurisdictions are required to enact specific procedures to guide mineral conservation and extraction at particular sites and to incorporate mineral resource management policies into their general plans. A particular concern of state legislators in enacting SMARA was the premature loss of minerals and protection of sites threatened by development practices that might preclude future mineral extraction.

California Geological Survey Mineral Resources Project

The CGS Mineral Resources Project provides information about California's nonfuel mineral resources. The Mineral Resources Project classifies lands throughout the state that contain regionally significant mineral resources as mandated by SMARA. Nonfuel mineral resources include metals such as gold, silver, iron, and copper; industrial metals such as boron compounds, rare-earth elements, clays, limestone, gypsum, salt, and dimension stone; and construction aggregate including sand, gravel, and crushed stone. Development generally results in a demand for minerals, especially construction aggregate. SMARA requires all cities and counties in the state to incorporate in their general plans the mapped MRZ designations approved by the State Mining and Geology Board. The classification process involves the determination of P-C region boundaries based on identification of active aggregate operations (Production) and the market area served (Consumption). The P-C regional boundaries are modified to include only those portions of the region that are urbanized or urbanizing and are classified for their aggregate content.

California Geologic Energy Management Division

The California Geologic Energy Management Division (CalGEM), formerly the Division of Oil, Gas, and Geothermal Resources (DOGGR), oversees the drilling, operation, maintenance, and plugging and abandonment of oil, natural gas, and geothermal wells, while working to help California achieve its climate change and clean energy goals. CalGEM regulates the drilling, operation, and permanent closure of energy resource wells (DOC 2019).

California Department of Conservation Idle Well Program

Inactive and deserted oil and gas wells that are not maintained (i.e., "idle wells") can pose threats to groundwater and public safety (DOC 2022).[1] In April 2019, CalGEM revised its idle well regulations to create more stringent testing requirements that better protect public safety and the environment from the potential threats posed by idle wells. The regulations require idle wells to be tested and, if necessary, repaired, or permanently sealed and closed. If an operator becomes insolvent or deserts their idle wells, responsibility for permanently sealing and closing these wells may fall to the state. Since 1977, CalGEM has plugged and abandoned about 1,400 wells at a cost of $29.5 million (DOC 2022). To reduce the number of idle wells for which the state may become responsible, legislative and regulatory changes have been made to create incentives for operators to manage and eliminate their idle wells by entering into Idle Well Management Plans (IWMPs). If an operator does not have an IWMP, the operator must pay annual idle well fees. In 2018, CalGEM collected approximately $4.3 million in idle well fees (DOC 2022). These fees are deposited into the Hazardous and Idle-Deserted Well Abatement Fund to help fund the permanent sealing and closure of deserted wells (DOC 2022).

Regional and Local

Town of Apple Valley 2009 General Plan

The Energy and Mineral Resources Element of the 2009 General Plan (General Plan) for the Town of Apple Valley provides guidance for the long-term management and thoughtful use of the town's energy and mineral resources. The Open Space and Conservation Element aims to identify and safeguard public and private lands that hold

[1] According to the California Public Resources Code, an idle well is defined as "…any well that for a period of 24 consecutive months has not either produced oil or natural gas, produced water to be used in production stimulation, or been used for enhanced oil recovery, reservoir pressure management, or injection. For the purpose of determining whether a well is an idle well, production or injection is subject to verification by the division" (DOC 2022).

significant natural resources for preservation. Furthermore, the Air Quality Element focuses on adhering to the ambient air quality standards established by the federal Environmental Protection Agency (EPA) and the California Air Resources Board (CARB). The Project is affected by several goals, policies, and programs from these elements, which are summarized below.

Open Space Element

Goal: The Town will promote land use decision that ensure compatibility between mineral resource extraction and adjacent land uses.

Program 5.A: The Town shall require that potential adverse environmental effects from mineral extraction operations are prevented or minimized to the greatest extent possible.

Program 5.A.1: All mined lands must be reclaimed to a usable condition which is readily adaptable for alternative uses in such a way that the continued mining of valuable minerals is not precluded, at the earliest possible time after the cessation of mining activity within a given resource area in compliance with the approved Reclamation Plan adopted for each mining activity permit.

Policy 5.B: Aggregate, limestone and other mineral resource extractions shall be allowed only in cases where all residual hazards to public health and safety are effectively mitigated.

Air Quality Element

Policy 1.C**:** The town shall coordinate land use planning efforts to assure that sensitive receptors are reasonably separated from polluting point sources including mineral extraction operations.

Energy and Mineral Resources Element

Goal. Assure the long-term availability and affordability of energy and mineral resources through conservation consumption, efficient use and environmentally sensitive management practices.

Policy 1.E: Assure the long-term availability of local mineral resources to provide a reliable and affordable supply of materials for the construction of buildings, roads, flood control facilities and other necessary improvements.

Program 1.E.1: To the extent practical, the Town shall monitor and regulate the safe and environmentally responsible extraction and recycling of significant local mineral resources.

Program 1.E.2: The Town shall maintain a formal relationship with the County Geologist or other qualified agency to monitor mineral resource operations under SMARA.

Program 1.E.3: The Town shall require the recycling of mineral-based construction materials, including asphalt, concrete, gypsum and similar materials, and the use of recycled materials in new construction.

4.10.3 Thresholds of Significance

In accordance with Appendix G of the State CEQA Guidelines, the applicable thresholds of significance with regard to mineral resources are listed below. A project may have a significant impact if it would:

A. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state; or
B. 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.
C. Result in a cumulatively considerable impact with regard to mineral resources.

Methodology

The impact analysis of the Project on mineral resources considered the Mineral Land Classification reports and figures developed by the DOC, which provide information on the likelihood of significant mineral resources in the region. The Mineral Land Classification system categorizes areas as MRZ-1, MRZ-2, MRZ-3, and MRZ-4 based on available geologic data and economic factors. Areas classified as MRZ-1 have little likelihood of containing significant mineral resources according to available geologic information. MRZ-2 is divided into two subcategories: MRZ-2a and MRZ-2b. MRZ-2a represents areas underlain by mineral deposits where geologic data indicate that significant measured or indicated reserves are present, while MRZ-2b contains discovered mineral deposits that are significant inferred resources as determined by their lateral extension from proven deposits or their similarity to proven deposits. MRZ-3 also has two subcategories: MRZ-3a and MRZ-3b. MRZ-3a includes areas containing known mineral occurrences of undetermined mineral resource significance that could be reclassified into MRZ-2a or MRZ-2b categories through further exploration work. MRZ-3b represents areas containing inferred mineral occurrences of undetermined mineral resource significance, which are geologic settings that appear to be favorable for the occurrence of specific mineral deposits. Finally, MRZ-4 areas have no known mineral occurrences, and geologic information does not rule out the presence or absence of significant mineral resources. Overall, the analysis of the potential impact on mineral resources focuses on the MRZ-2 areas, as they contain known mineral deposits that are of statewide economic importance. The geographic scope of impacts associated with mineral resources generally encompasses the Project site and a 0.25-mile radius around the Project site.

Analysis of mineral resource impacts regarding locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan was based on the Mineral Land Classification reports and figures developed by the DOC, existing and past uses on the Project site, and mineral resource information from the County's General Plan. Mineral resource information from the Town of Apple Valley General Plan, Conservation and Open Space Element, was taken into account for this analysis. As MRZ-2a and MRZ-2b are the only mineral zones with known occurrence of significant minerals, this analysis assumes that a potentially significant impact would occur if the Project site is identified as MRZ-2a or MRZ-2b by the DOC, or if the General Plan, or the Town of Apple Valley's General Plan identified existing mineral extraction areas within the Project site or vicinity. The analysis would then consider whether the Project would result in a loss of known mineral resources of local importance.

4.10.4 Impact Analysis

Threshold A: Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

As described in Section 4.10.1 and depicted on Figure 4-10.1, Mineral Resource Zones North Map, the Project site contains areas designated as MRZ-3a. The Project site does not contain an MRZ-2 zone. MRZ-3a includes areas containing known mineral occurrences of undetermined mineral resource significance that could be reclassified into MRZ-2a or MRZ-2b categories through further exploration work, the significance of which cannot be evaluated from available data.

As discussed above, MRZ-2 zones are located near the Project site, which have been associated with the Scheer Limestone Quarry and the Piercy Limestone Quarry. Construction and operation of the Project would involve development of approximately 178 acres of land in the MRZ-3 zone as well as off-site improvements within existing road rights-of-way, which are also located within MRZ-3 zone. Therefore, the Project would not impede future mining activities within the MRZ-2 zone area that would result in the loss of availability of a known resource.

Therefore, due to the lack of any known significant mineral resources that would be of value to the region and the residents of the state within the Project site, the Project would not result in the loss of availability of a known mineral resource of significance to the region or residents of the state, and there would be no impact.

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?

As described in Section 4.10.1, the DOC identified the Project site as containing areas designated as MRZ-3a. The Town of Apple Valley General Plan's Mineral Resource Zones North/Mines and Prospects Figure III-8 did not identify the Project site as a Mineral Resource Zone (see Figure 4.10-1). The Town defines the "Mineral Resource Zone" as MRZ-2 zones only (Town of Apple Valley 2009). The Project site is not located in a specific plan area, and the Town's General Plan relies on the DOC's Mineral Land Classification reports to determine the presence of any mineral resources (Town of Apple Valley 2009). Therefore, it can be concluded that the Project site does not contain any locally-important mineral resource recovery sites. There are no known significant mineral resources present on the Project site; the Project site is not within an MRZ-2 zone.

However, the Project would be located near an MRZ-2a zone as indicated in the Town of Apple Valley General Plan's Mineral Resource Zones North/Mines and Prospects Figure III-8 (see Figure 4.10-1), which likely contains locally important mineral resources. The Project site is adjacent to Calportland aggregate mine, which would indicate the presence of economically important mineral resources. The Project would include a dedicated haul road for Calportland haul trucks to safely export minerals from the adjacent quarry to the Calportland processing facility west of I-15.

In addition, there are no producing oil resources on the Project site (CalGEM 2022). Therefore, the Project would not result in a loss of availability of locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plans, and there would be no impact.

Threshold C: Would the Project result in cumulatively considerable impacts with regard to mineral resources?

The General Plan Initial Study found that the predominance of the Town is designated as "MRZ-3a" and that future development within the planning area would not substantially limit the future availability of known mineral resources (Town of Apple Valley 2009). Past, present, and reasonably foreseeable future projects would be consistent with the General Plan land use designations and would not result in cumulatively considerable impacts with regard to mineral resources. Impacts would be less than significant.

4.10.5 Mitigation Measures and Level of Significance After Mitigation

Threshold A: Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

The Project would result in no impacts with regard to the loss of availability of a known mineral resource of value to the state or region. No mitigation measures are required to reduce impacts to less than significant.

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 would result in no impacts with regard to the loss of availability of a locally-important mineral resource as designated on a local general plan, specific plan, or other land use plan. No mitigation measures are required to reduce impacts to less than significant.

Threshold C: Would the Project result in cumulatively considerable impacts with regard to mineral resources?

The Project would result in less than significant impacts with regard to cumulatively considerable impacts regarding mineral resources. No mitigation measures are required to reduce impacts to less than significant.

4.10.6 References Cited

CalGEM (California Geologic Energy Management Division). 2022, Well Finder, Ayers Well Report. Accessed April 28, 2023. https://maps.conservation.ca.gov/doggr/wellfinder/.

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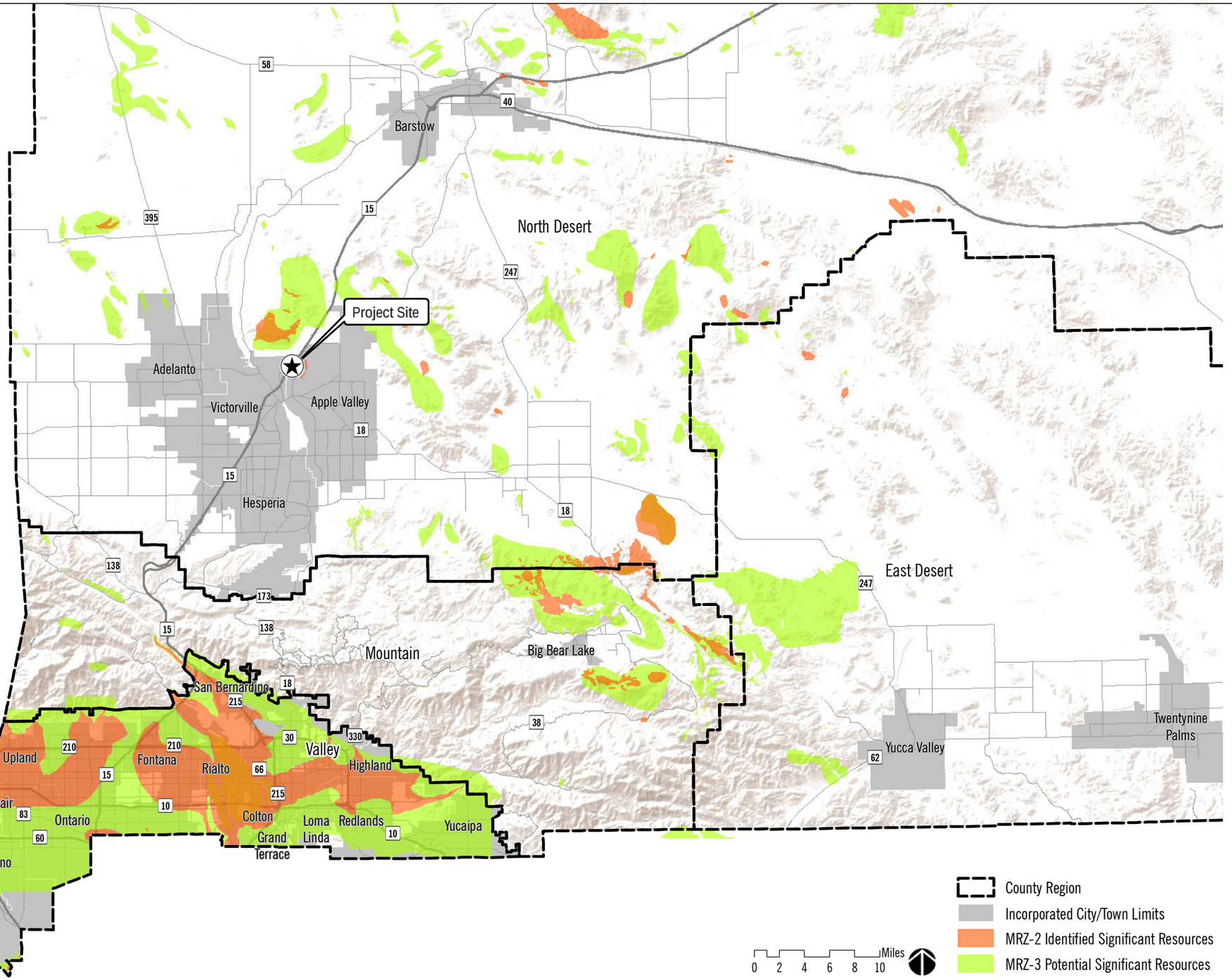

SOURCe: Draft Countywide Plan Environmental Impact Report, San Bernardino County, 2019

FIGURE 4.10-1

Mineral Resources Zones

Inland Empire North Logistics Center Apple Valley Project

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4.11 Noise

This section describes the existing noise conditions of the Inland Empire North Logistics Apple Valley Project (Project) site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies any necessary mitigation measures (MM) related to implementation of the Project.

In addition to the documents incorporated by reference (see Section 2.7, Documents Incorporated by Reference, of this environmental impact report [EIR]), the following analysis is based, in part, on the following sources:

- Field Noise Data, prepared by Dudek in August 2023 (Appendix I-1)
- Construction Noise Modeling Data, prepared by Dudek in October 2023 (Appendix I-2)
- Traffic Noise Modeling Data, prepared by Dudek in October 2023 (Appendix I-3)
- On-Site Noise Modeling Data, prepared by Dudek in October 2023 (Appendix I-4)

4.11.1 Existing Conditions

Noise and Vibration Characteristics

Noise

Sound may be described in terms of level or amplitude (measured in decibels [dB]), frequency or pitch (measured in hertz [Hz] or cycles per second), and duration (measured in seconds or minutes). The standard unit of measurement of the amplitude of sound is the decibel. Because the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale is used to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this compensation by discriminating against low and very high frequencies in a manner approximating the sensitivity of the human ear. Several descriptors of noise (noise metrics) exist to help predict average community reactions to the adverse effects of environmental noise, including traffic-generated noise, on a community. These descriptors include the equivalent noise level over a given period (L_{eq}), the statistical sound level (L_n), the day–night average noise level (L_{dn}), and the community noise equivalent level (CNEL). Each of these descriptors uses units of dBA. Table 4.11-1 provides examples of A-weighted noise levels from common sounds. In general, human sound perception is such that a change in sound level of 3 dB is barely noticeable, a change of 5 dB is clearly noticeable, and a change of 10 dB is perceived as doubling or halving of the sound level.

Table 4.11-1. Typical Sound Levels in the Environment and Industry

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
—	110	Rock band
Jet flyover at 300 meters (1,000 feet)	100	—
Gas lawn mower at 1 meter (3 feet)	90	—
Diesel truck at 15 meters (50 feet), at 80 kph (50 mph)	80	Food blender at 1 meter (3 feet) Garbage disposal at 1 meter (3 feet)
Noisy urban area, daytime gas lawn mower at 30 meters (100 feet)	70	Vacuum cleaner at 3 meters (10 feet)
Commercial area Heavy traffic at 90 meters (300 feet)	60	Normal speech at 1 meter (3 feet)

Table 4.11-1. Typical Sound Levels in the Environment and Industry

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
Quiet urban daytime	50	Large business office Dishwasher, next room
Quiet urban nighttime	40	Theater, large conference room (background)
Quiet suburban nighttime	30	Library
Quiet rural night time	20	Bedroom at night, concert hall (background)
—	10	Broadcast/recording studio
Lowest threshold of human hearing	0	Lowest threshold of human hearing

Source: Caltrans 2013.
Notes: dBA = A-weighted decibels; kph = kilometers per hour; mph = miles per hour.

L_{eq} is a sound energy level averaged over a specified period (typically no less than 15 minutes for environmental studies). L_{eq} is a single numerical value that represents the amount of variable sound energy received by a receptor during a time interval. For example, a 1-hour L_{eq} measurement would represent the average amount of energy contained in all the noise that occurred in that hour. L_{eq} is an effective noise descriptor because of its ability to assess the total time-varying effects of noise on sensitive receptors (see below for definition of sensitive receptors). L_{max} is the greatest sound level measured during a designated time interval or event.

Unlike the L_{eq} metrics, L_{dn} and CNEL metrics always represent 24-hour periods, usually on an annualized basis. L_{dn} and CNEL also differ from L_{eq} because they apply a time-weighted factor designed to emphasize noise events that occur during the evening and nighttime hours (when speech and sleep disturbance is of more concern). "Time weighted" refers to the fact that L_{dn} and CNEL penalize noise that occurs during certain sensitive periods. In the case of CNEL, noise occurring during the daytime (7:00 a.m.–7:00 p.m.) receives no penalty. Noise during the evening (7:00 p.m.–10:00 p.m.) is penalized by adding 5 dB, while nighttime (10:00 p.m.–7:00 a.m.) noise is penalized by adding 10 dB. L_{dn} differs from CNEL in that the daytime period is defined as 7:00 a.m.–10:00 p.m., thus eliminating the evening period. L_{dn} and CNEL are the predominant criteria used to measure roadway noise affecting residential receptors. These two metrics generally differ from one another by no more than 0.5 dB to 1 dB, and as such are often treated as equivalent to one another.

Vibration

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. Vibration can be a serious concern, causing buildings to shake and rumbling sounds to be heard. In contrast to noise, vibration is not a common environmental problem. It is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads. Some common sources of vibration are trains, buses on rough roads, and construction activities, such as blasting, pile driving, and heavy earthmoving equipment.

Several different methods are used to quantify vibration. Peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. PPV is most frequently used to describe vibration impacts to buildings and is usually measured in inches per second (ips). The root mean square amplitude is most frequently used to describe the effect of vibration on the human body and is defined as the average of the squared amplitude of the

signal. Decibel notation (VdB) is commonly used to measure root mean square. VdB acts to compress the range of numbers required to describe vibration.

High levels of vibration may cause physical personal injury or damage to buildings. However, vibration levels rarely affect human health. Instead, most people consider vibration to be an annoyance that can affect concentration or disturb sleep. In addition, high levels of vibration can damage fragile buildings or interfere with equipment that is highly sensitive to vibration (e.g., electron microscopes). Most perceptible indoor vibration is caused by sources within buildings, such as operation of mechanical equipment, movement of people, or slamming of doors. Typical outdoor sources of perceptible vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If the roadway is smooth, the vibration from traffic is rarely perceptible.

Sensitive Receptors

Noise- and vibration-sensitive land uses are locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. Residences, schools, hospitals, guest lodging, libraries, and some passive recreation areas would be considered noise and vibration sensitive and may warrant unique measures for protection from intruding noise.

Sensitive receptors in the vicinity of the Project site include residential uses located approximately 1.3 miles to the south and 0.75 miles southwest of the Project site. These sensitive receptors represent the nearest land uses with the potential to be impacted by construction and operation of the Project. Noise-sensitive receptors located farther from the Project site in the surrounding community would be less impacted by noise and vibration levels than the above-listed sensitive receptors. Figure 4.11-1 displays the nearest sensitive receptors (labeled ST1 and ST2) to the Project site.

Existing Noise Conditions

Currently, the approximately 178-acre Project site consists of predominantly vacant and undeveloped land, as well as disturbed land and unpaved roads. Approximately 20 acres at the northeast portion of the Project site are currently used for stockpiling of soil and similar type materials from off-site mining activities; a metal storage structure associated with the stockpiling activities is located within the stockpiling area. Stockpiling activities would cease upon construction of the Project, and the storage structure would be removed from the site. Thus, little to no noise is currently generated on site. However, the surrounding area is subject to traffic noise associated with adjacent roadways, specifically Interstate (I) 15 and Outer Highway 15. The CalPortland mine, located immediately east of the Project site, generates noise consisting of traffic noise entering and exiting the facility, mining equipment operation, and periodic blasting, which are audible in the immediate vicinity of the Project.

Noise measurements were conducted near the Project Site on August 10, 2023, to characterize the existing noise levels. The measurements were made using a calibrated Rion NL 52 integrating sound level meter. The sound level meter meets the current American National Standards Institute standard for a Type 1 (precision purpose) sound level meter. The accuracy of the sound level meter was verified using a field calibrator before and after the measurements, and the measurements were conducted with the microphone positioned approximately 5 feet above the ground.

Two short-term noise measurement locations (ST) that represent the nearest existing sensitive receivers were selected in the vicinity of the Project site. These locations are depicted as receivers ST1 and ST2 on Figure 4.11-1, Noise Measurement and Modeling Locations. The measured energy-averaged (L_{eq}) and maximum (L_{max}) noise levels are provided in Table 4.11-2. The primary noise sources at the measurement sites consisted of traffic along

adjacent roadways, and birds represented secondary noise sources. As shown in Table 4.11-2, the measured sound levels ranged from approximately 42 dBA L_{eq} at ST2 to 55 dBA L_{eq} at ST1. The field noise data sheets are provided in Appendix I-1.

Table 4.11-2. Measured Noise Levels

Receptors[1]	Location	Date	Time	L_{eq} (dBA)	L_{max} (dBA)
ST1	Southwest of Project site, adjacent to residence on Venus Avenue	8/10/2023	11:19 a.m.–11:36 a.m.	55.4	78.4
ST2	South of Project site, adjacent to residence on Quantico Road	8/10/2023	11:48 a.m.–12:03 p.m.	42.3	60.3

Source: Appendix I.
Notes: L_{eq} = equivalent continuous sound level (time-averaged sound level); L_{max} = maximum sound level during the measurement interval; dBA = A-weighted decibels.
1 Corresponds with Figure 4.11-1, Noise Measurement and Modeling Locations.

4.11.2 Relevant Regulations, Plans, Policies, and Ordinances

Federal

There are no federal noise standards that would directly regulate noise during construction and operation of the Project. The following is provided because guidance summarized herein is used or pertains to the analyses for construction noise, as well as for analysis of what constitutes a substantial increase from transportation noise.

Federal Interagency Committee on Noise

In 1992 the Federal Interagency Committee on Noise (FICON) assessed the annoyance effects of changes in ambient noise levels resulting from aircraft operations. Although the FICON recommendations were developed to address aircraft noise impacts, they are used in this analysis to define a substantial increase in community noise levels related to roadway traffic, as detailed in Section 4.11.3, Thresholds of Significance.

State

Government Code Section 65302(g)

California Government Code Section 65302(g) requires the preparation of a Noise Element in a General Plan, which shall identify and appraise the noise problems in the community. The Noise Element shall also recognize the guidelines adopted by the Office of Noise Control in the State Department of Health Services and shall quantify, to the extent practicable, current and projected noise levels for the following sources:

- Highways and freeways
- Primary arterials and major local streets
- Passenger and freight on-line railroad operations and ground rapid transit systems
- Aviation and airport-related operations
- Local industrial plants
- Other ground stationary noise sources contributing to the community noise environment

California General Plan Guidelines

The California General Plan Guidelines, published by the Governor's Office of Planning and Research, provides guidance for the acceptability of specific land use types within areas of specific noise exposure. The guidelines also present adjustment factors that may be used to arrive at noise acceptability standards that reflect the noise control goals of the community, the particular community's sensitivity to noise, and the community's assessment of the relative importance of noise pollution. The guidelines are advisory in nature. Local jurisdictions, including the Town of Apple Valley, have the responsibility to set specific noise standards based on local conditions.

Local

Town of Apple Valley General Plan

Applicable policies and standards governing environmental noise in the City are contained in the Town of Apple Valley General Plan Noise Element (Town of Apple Valley 2009). The Town's Noise Element (contained within Chapter IV, Environmental Hazards, of the General Plan) specifies the maximum allowable unmitigated exterior noise levels for new developments impacted by transportation noise sources such as arterial roads, freeways, airports, and railroads. In addition, the Noise Element identifies goals and policies to minimize the impacts of excessive noise levels throughout the community and establishes noise level requirements for all land uses. To limit the exposure of residents to excessive noise, the Noise Element contains the following goals:

Goal: Noise levels that are consistent with the Town's rural character and high quality of life.

To satisfy this goal, the Town's Noise Element identifies the following implementation policies:

> Policy 1.A: The Town shall adhere to the standards of "Land Use Compatibility for Community Environments."

The State of California's Land Use Compatibility Plan (Table IV-4 in the Town's General Plan Noise Element, provided here as Table 4.11-3) lists land use categories and the acceptable and unacceptable levels of community noise exposure. The compatibility criteria shown in Table 4.11-3 provides the Town with a planning tool to gauge the compatibility of land uses relative to existing and future exterior noise levels. According to these categories of transportation-related noise compatibility, industrial land uses such as the Project are considered normally acceptable with unmitigated exterior noise levels below 75 dBA CNEL and conditionally acceptable with noise levels between 70 dBA CNEL and 80 dBA CNEL. For conditionally acceptable land use, "new construction or development should be undertaken only after a detailed analysis of noise reduction requirements are made."

Table 4.11-3. Town of Apple Valley/State of California Land Use Compatibility Plan

Land Use Category	Community Noise Exposure (dBA CNEL)			
	Normally Acceptable[1]	Conditionally Acceptable[2]	Normally Unacceptable[3]	Clearly Unacceptable[4]
Residential–Low Density Single Family, Duplex, Mobile Home	50–60	55–70	70–75	75–85
Residential–Multiple Family	50–65	60–70	70–75	75–85
Transient Lodging–Motels, Hotels	50–65	60–70	70–80	80–85

Table 4.11-3. Town of Apple Valley/State of California Land Use Compatibility Plan

Land Use Category	Community Noise Exposure (dBA CNEL)			
	Normally Acceptable[1]	Conditionally Acceptable[2]	Normally Unacceptable[3]	Clearly Unacceptable[4]
Schools, Libraries, Churches, Hospitals, Nursing Homes	50–65	60–70	70–80	80–85
Amphitheater, Concert Hall, Auditorium, Meeting Hall	NA	50–70	NA	65–85
Sports Arenas, Outdoor Spectator Sports	NA	50–75	NA	70–85
Playgrounds, Neighborhood Parks	50–70	NA	67.5–75	72.5–85
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50–75	NA	70–80	80–85
Office Buildings, Business Commercial and Professional	50–70	67.5–77.5	75–85	NA
Industrial, Manufacturing, Utilities, Agriculture	50–75	70–80	75–85	NA

Source: Town of Apple Valley 2009.
Notes: CNEL = Community Noise Equivalent Level; NA = Not Applicable.
1 Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
2 Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.
3 Normally Unacceptable: New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
4 Clearly Unacceptable: New construction or development should generally not be undertaken.

Town of Apple Valley Municipal Code

The Town of Apple Valley's Municipal Code Noise Ordinance (Chapter 9.73 – Noise Control) has the stated purpose of reducing unnecessary, excessive and annoying noise and vibration within the Town. Thus, in Section 9.73.050 (External and Internal Noise Standards) the Town limits outdoor noise levels at various types of receptors in Table 9.73.050-A Exterior Noise Limits (provided here as Table 4.11-4) with noise levels being restricted in single-family residential areas to 50 dBA from 7 a.m. to 10 p.m. and 40 dBA from 10 p.m. to 7 a.m.

Table 4.11-4. Exterior Noise Limits (not to be exceeded more than 30 minutes in any hour)

Receiving Land Use Category	Time Period	Noise Level (dBA)
Single Family Residential	10 p.m. - 7 a.m.	40
	7 a.m. - 10 p.m.	50
Multiple Dwelling Residential, Public Space	10 p.m. - 7 a.m.	45
	7 a.m. - 10 p.m.	50

Table 4.11-4. Exterior Noise Limits (not to be exceeded more than 30 minutes in any hour)

Receiving Land Use Category	Time Period	Noise Level (dBA)
Limited Commercial & Office	10 p.m. - 7 a.m. 7 a.m. - 10 p.m.	55 60
General Commercial	10 p.m. - 7 a.m. 7 a.m. - 10 p.m.	60 65
Light Industrial Heavy Industrial	Any Time Any Time	70 75

Source: Town of Apple Valley Municipal Code, Table 9.73.050-A.

Section 9.73.050 subsection (F) of the Municipal Code has specific limits on noise from construction and demolition activities, as follows:

1. Operating or causing the operation of any tools or equipment used in construction, drilling, repair, alteration, or demolition work between weekday hours of 7 p.m. and 7 a.m., or at any time on weekends or holidays, such that the sound therefrom creates a noise disturbance across a residential or commercial real property line, except for emergency work of public service utilities or by variance issued by the Town.
2. Noise Restrictions at Affected Properties. Where technically and economically feasible, construction activities shall be conducted in such a manner that the maximum noise levels at affected properties will not exceed those listed in the following schedule (Table 9.73.060-A Maximum Noise Levels, provided here as Table 4.11-5).
3. All mobile or stationary internal combustion engine powered equipment or machinery shall be equipped with suitable exhaust and air intake silencers in proper working order.

Table 4.11-5. Construction Noise Limits

At Residential Properties			
	Type I Areas Single-Family Residential	Type II Areas Multi-Family Residential	Type III Areas Semi-Residential/ Commercial
Mobile Equipment: Maximum noise levels for nonscheduled intermittent, short-term operation (less than 10 days) of mobile equipment:			
Daily, except Sundays and Legal Holidays, 7 a.m. to 7 p.m.	75 dBA	80 dBA	85 dBA
Daily, 7 p.m. to 7 a.m. and all day Sunday and Legal Holidays	60 dBA	65 dBA	70 dBA
Stationary Equipment: Maximum noise levels for repetitively scheduled and relatively long-term operation (periods of 10 days or more) of stationary equipment:			
Daily, except Sundays and Legal Holidays, 7 a.m. to 7. p.m.	60 dBA	65 dBA	70 dBA

Table 4.11-5. Construction Noise Limits

At Residential Properties			
	Type I Areas Single-Family Residential	Type II Areas Multi-Family Residential	Type III Areas Semi-Residential/ Commercial
Daily, 7 p.m. to 7 a.m. and all day Sunday and Legal Holidays	50 dBA	55 dBA	60 dBA
Mobile Equipment: Maximum noise levels for nonscheduled, intermittent, short-term operation of mobile equipment:			
Daily, including Sundays and legal holidays, all hours: maximum of 85 dBA.			
Stationary Equipment: Maximum noise levels for repetitively scheduled and relatively long-term operation of stationary equipment:			
Daily, including Sundays and legal holidays, all hours: maximum of 75 dBA.			

Source: Town of Apple Valley Municipal Code, Table 9.73.060-A.

Section 9.73.050 subsection (G) of the Municipal Code restricts vibration, requiring that no person unnecessarily make, continue, or cause to be made or continued any vibration that is above the vibration perception threshold of an individual at or beyond the property boundary of the source if on private property or at 150 feet from the source if on a public space or public right-of-way. The vibration perception level is defined in Section 9.73.020 (34) of the Municipal Code (Definitions) as a motion velocity of 0.01 in/sec over the range of 1 to 100 Hz.

4.11.3 Thresholds of Significance

The significance criteria used to evaluate the Project impacts related to noise are based on California Environmental Quality Act (CEQA) Appendix G. According to CEQA Guidelines Appendix G, a significant impact related to noise would occur if the Project would:

A. 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.
B. Result in generation of excessive groundborne vibration or groundborne noise levels.
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, expose people residing or working in the Project area to excessive noise levels.

Quantitative thresholds of significance have been established for the purposes of this analysis based on the local polices and regulations described in Section 4.11.2, Relevant Regulations, Plans, Policies, and Ordinances, as well as those of federal agencies and are listed below.

- **Construction Noise:** During construction activities, an exceedance of Section 9.73.050 subsection (F) of the Town's Municipal Code thresholds would be considered a significant noise impact.
- **Traffic Noise:** Guidance regarding the determination of a substantial permanent increase in transportation noise levels in the project vicinity above existing levels is provided by the 1992 findings of FICON, which assessed the annoyance effects of changes in ambient noise levels resulting from

aircraft operations. The FICON recommendations are based upon studies that relate aircraft noise levels to the percentage of persons highly annoyed by the noise. Annoyance is a qualitative measure of the adverse reaction of people to noise that generates speech interference, sleep disturbance, or interference with the desire for a tranquil environment.

The rationale for the FICON recommendations is that it is possible to consistently describe the annoyance of people exposed to transportation noise in terms of L_{dn} (and, by extension, CNEL[1]). The changes in noise exposure that are shown in Table 4.11-6 are expected to result in equal changes in annoyance at sensitive land uses. Although the FICON recommendations were developed to address aircraft noise impacts, they are used in this analysis to define a substantial increase in community noise levels related to all transportation noise sources.[2]

Table 4.11-6. Measures of Substantial Increase for Transportation Noise Sources

Ambient Noise Level Without Project (L_{dn}/CNEL)	Significant Impact Assumed to Occur if the Project Increases Ambient Noise Levels by:
<60 dB	+ 5 dB or more
60–65 dB	+ 3 dB or more
>65 dB	+ 2 dB or more

- On-Site Project-Attributed Stationary Noise: A noise impact would be considered significant if noise from typical operation of heating, ventilation and air conditioning (HVAC) and other electro-mechanical systems or other on-site operational noise associated with the Project (such as parking lot and loading dock activities noise) exceeded the applicable Municipal Code standards (Section 9.73.050) as detailed in Section 4.11.2.
- Construction Vibration: Groundborne vibration from construction and operation of the Project would be considered significant if the Project resulted in vibration levels exceeding the levels specified in Section 9.73.050 subsection (G) of the Town's Municipal Code, as detailed in Section 4.11.2.

4.11.4 Impacts Analysis

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?

Short-Term Construction Impacts

Less-than-Significant Impact**.** Construction noise and vibration are temporary phenomena, with emission levels varying from hour to hour and day to day, depending on the equipment in use, the operations performed, and the distance between the source and receptor. Equipment that would be in use during construction would include, in part, graders, backhoes, rubber-tired dozers, loaders, cranes, forklifts, pavers, rollers, and air compressors. The typical maximum noise levels at a distance of 50 feet from various pieces of construction equipment and activities

1 As discussed in Section 4.11.1, the L_{dn} and CNEL noise metrics are very similar and often used interchangeably.

2 Traffic noise and other transportation noise sources are similar to aircraft/airport noise in that all of these noise sources can and do operate throughout the daytime and nighttime hours. The FICON recommendations use a weighted 24-hour noise metric, in which noise occurring during nighttime hours has a penalty applied to account for the increased sensitivity of persons to noise at night. Additionally, the graduated levels of the FICON guidance for substantial increase account for the diminishing tolerance of the typical person to noise increases as ambient noise levels are increased. Such is the case whether the dominant noise source is aircraft, or some other transportation source.

anticipated for use on the proposed Project site are presented in Table 4.11-7. Note that the equipment noise levels presented in Table 4.11-7 are maximum noise levels. Usually, construction equipment operates in alternating cycles of full power and low power, producing average noise levels over time that are less than the maximum noise level. The average sound level of construction activity also depends on the amount of time that the equipment operates and the intensity of construction activities during that time.

Table 4.11-7. Typical Construction Equipment Maximum Noise Levels

Equipment Type	Typical Equipment (L_{max}, dBA at 50 Feet)
All Other Equipment > 5 HP	85
Backhoe	78
Compressor (air)	78
Crane	81
Dozer	82
Excavator	81
Flat Bed Truck	74
Front End Loader	79
Generator	72
Grader	85
Man Lift	75
Paver	77
Roller	80
Scraper	84
Welder / Torch	73

Source: FTA 2018.
Note: L_{max} = maximum sound level; dBA = A-weighted decibels.

Aggregate noise emission from proposed Project construction activities, broken down by sequential phase, was predicted at two evaluation distances to the nearest existing noise-sensitive receptor: (1) from the nearest position of the construction site boundary and (2) from the geographic center of the construction site, which serves as the time-averaged location or geographic *acoustical centroid* of active construction equipment for the phase under study. The intent of the former distance is to help evaluate anticipated construction noise from a limited quantity of equipment or vehicle activity expected to be at the boundary for some period of time, which would be most appropriate for phases such as site preparation, grading, and paving. The latter distance is used in a manner similar to the general assessment technique as described in the FTA guidance for construction noise assessment, when the location of individual equipment for a given construction phase is uncertain over some extent of (or the entirety of) the construction site area. In this studied scenario, because of the equipment location uncertainty, all the equipment for a construction phase is assumed to operate—on average—from the acoustical centroid position. Table 4.11-8 summarizes these two distances to the apparent closest noise-sensitive receptor for each of the five sequential construction phases. At the site boundary, this analysis assumes that all equipment of each listed type per phase will be involved in the construction activity for the full 8-hour period. For the acoustical centroid case, which intends to be a geographic average position for all equipment during the indicated phase, this analysis assumes that the equipment may be operating up to all 8 hours per day.

Table 4.11-8. Estimated Distances between Construction Activities and the Nearest Noise-Sensitive Receptors

Construction Phase (and Equipment Types Involved)	Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)	Distance from Nearest Noise-Sensitive Receptor to Acoustical Centroid of Site (Feet)
Site Preparation (dozer, front end loader)	4,000	5,000
Grading (excavator, grader, dozer, scraper backhoe)	4,000	5,000
Building construction (crane, man-lift, generator, backhoe, welder)	4,000	5,000
Paving (paver, roller, concrete mixer truck)	4,000	5,000
Architectural Coating (compressor)	4,000	5,000

A Microsoft Excel–based noise prediction model emulating and using reference data from the Federal Highway Administration Roadway Construction Noise Model (RCNM) (FHWA 2008) was used to estimate construction noise levels at the nearest occupied noise-sensitive land use. (Although the RCNM was funded and promulgated by the Federal Highway Administration, it is often used for non-roadway projects, because the same types of construction equipment used for roadway projects are often used for other types of construction.) Input variables for the predictive modeling consist of the equipment type and number of each (e.g., two graders, a loader, a tractor), the duty cycle for each piece of equipment (e.g., percentage of time within a specific time period, such as an hour, when the equipment is expected to operate at full power or capacity and thus make noise at a level comparable to what is presented in Table 4.11-7), and the distance from the noise-sensitive receiver. The predictive model also considers how many hours that equipment may be on site and operating (or idling) within an established work shift. Conservatively, no topographical or structural shielding was assumed in the modeling. The RCNM has default duty-cycle values for the various pieces of equipment, which were derived from an extensive study of typical construction activity patterns. Those default duty-cycle values were used for this noise analysis, which is detailed in Appendix I-1, Construction Noise Modeling Input and Output, and produce the predicted results displayed in Table 4.11-9.

Table 4.11-9. Predicted Construction Noise Levels per Activity Phase

Construction Phase (and Equipment Types Involved)	8-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	8-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Acoustical Centroid of Site (dBA)
Site Preparation (dozer, front end loader)	40.9	38.0
Grading (excavator, grader, dozer, scraper backhoe)	41.6	38.6
Building construction (crane, man-lift, generator, backhoe, welder)	38.7	35.7
Paving (paver, roller, concrete mixer truck)	39.3	36.3

Table 4.11-9. Predicted Construction Noise Levels per Activity Phase

Construction Phase (and Equipment Types Involved)	8-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	8-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Acoustical Centroid of Site (dBA)
Architectural Coating (compressor)	32.0	29.0

Source: Appendix I.

As presented in Table 4.11-9, the highest estimated construction noise levels are predicted to stay below 42 dBA L_{eq} over an 8-hour period at the nearest existing residences on Venus Avenue (as close as 4,000 feet away) when grading activities take place near the southern Project boundaries. Measured ambient noise levels were recorded in the mid 50s on the dBA scale, which translates to no increase in ambient levels based on the predicted construction noise levels listed in table 4.11-9. Short-term construction noise remains well below the thresholds listed in Section 9.73.050 subsection (F) of the Town's Municipal Code of 50 dBA and therefore is less than significant.

Long-Term Operational Impacts

Off-Site Traffic Noise Exposure

The proposed Project would result in the creation of additional vehicle trips on local arterial roadways (i.e., Outer Highway 15), which could result in increased traffic noise levels at adjacent noise-sensitive land uses. Appendix I-3, Traffic Noise Modeling Input and Output, contains a spreadsheet with traffic volume data (average daily traffic) for Outer Highway 15. In particular, the proposed Project would create additional traffic along Outer Highway 15, which according to the Traffic Impact Assessment prepared for the proposed Project (David Evans & Associates 2023) would add 6,145 total average daily trips adjacent to the Project site.

Potential noise effects from vehicular traffic were assessed using the Federal Highway Administration's Traffic Noise Model version 2.5 (FHWA 2004). Information used in the model included the roadway geometry, existing (year 2022), existing plus Project, near-term (opening day) and near-term (opening day) plus Project traffic volumes and posted traffic speeds. Noise levels were modeled at representative noise-sensitive receivers ST1 through ST2, as shown in Figure 4.11-1, Noise Measurement and Modeling Locations. The receivers were modeled to be 5 feet above the local ground elevation. The noise model results are summarized in Table 4.11-10. Based on results of the model, implementation of the proposed Project would not result in readily perceptible increases in traffic noise.

Table 4.11-10. Roadway Traffic Noise Modeling Results

Modeled Receiver No.	Existing (2023) Noise Level	Existing with Project Noise Level	Future (2040) without Project Noise Level	Future with Project Noise Level	Maximum Project-Related Noise Level Increase
	(dBA CNEL)	(dBA CNEL)	(dBA CNEL)	(dBA CNEL)	(dB)
ST1	55.6	56.1	55.8	56.3	0.5
ST2	37.3	37.7	37.4	37.7	0.4

Source: Appendix I.
Notes: dBA = A-weighted decibel; CNEL = community noise equivalent level; dB = decibel.

As Table 4.11-10 shows, the Project would increase the traffic noise levels along the nearby arterial roadways by 0 to 1 dBA (when rounded to whole numbers). A change (either an increase or a decrease) of 1 dB or less is not an

audible change in the context of community noise (i.e., outside of a controlled test environment). Furthermore, as shown in Table 4.11-10, the Project would not cause noise levels to exceed applicable City noise standards. The proposed Project would increase by 0.5 dB CNEL at ST1 and 0.4 dB CNEL at ST2, which is below the CNEL threshold of 5 dB or more in locations with an ambient noise level of less than 60 dBA CNEL, nor would the proposed Project result in an increase of 3 dB or more in locations with an ambient noise level of 60 to 65 dBA CNEL or an increase of 2 dB or more in locations with an ambient noise level greater than 65 dBA CNEL. Based upon these results, off-site traffic noise impacts would be **less than significant**. No mitigation measures are required.

On-Site Outdoor Mechanical Equipment

The proposed warehouse spaces within the warehouse/office buildings would not be served by heating or air-conditioning equipment. However, the proposed office areas would be equipped with single-packaged rooftop HVAC units with air-handling capacity of 3 to 6 nominal tons. For the analysis of noise from this HVAC equipment operation, a York ZF-048 HVAC unit was used as a reference. The York Model ZF-048 package HVAC unit has a sound power rating of 80 dBA (Johnson Controls 2015). Based upon the provided site plan, there would be one such HVAC unit for each of the four offices located within the proposed Project (i.e., one office in each corner).

Noise level data provided by the manufacturer was used to determine the noise levels that would be generated by the HVAC equipment. The worst-case calculated noise levels at the nearest residential properties (to the south) and the property lines to the south are presented in Table 4.11-11. The calculations were performed at the worst-case locations of each of the subject property lines—that is, the closest distances between the proposed office locations and the adjacent property lines, to ensure that the shortest distance from equipment to property line was examined.

Aggregate on-site operation noise attributed to the Project was predicted with the Datakustik CadnaA (CadnaA) software platform, in which a 3D outdoor sound propagation model of major structures, mechanical equipment, loading bay, container storage area, and parking lot activity associated with the Project's proposed warehouse was developed.

CadnaA is a commercially available software program used to evaluate outdoor sound propagation from industrial and transportation facilities and incorporates International Organization for Standardization (ISO) 9613-2 algorithms and reference data. The software includes default analysis "configuration" settings that may be customized or selected by the user, such as the following examples:

- **Meteorological conditions –** "calm" wind speed, with less than 0.5 meters per second in any direction; average temperature of 68 degrees Fahrenheit, and seventy percent (70%) relative humidity.
- **Orders of reflection –** one (1), which in summary means sound paths are analyzed through two successive interactions with buildings, barriers, and other solid surfaces.
- **Acoustical ground absorption –** an average site-wide coefficient of 0.5, which is the median value between zero (full reflection, such as the surfaces of bodies of water, windows, or smooth pavement) and one (full absorption, such as fresh-fallen snow or loose, vegetative-covered soil).

As shown in Table 4.11-11, the maximum hourly noise level for the HVAC equipment operating at each examined point would be approximately 27 dBA L_{eq} at the nearest residential properties and approximately 57.5 dBA L_{eq} at the Project's property boundaries. The results of the mechanical equipment operations noise analysis indicate that the Project would comply with the Town's Municipal Code threshold. Therefore, impacts associated with on-site HVAC noise would be less than significant.

Table 4.11-11. Mechanical Equipment (HVAC) Noise

Equipment	Receiver Location	Zone	HVAC Noise Level (dBA L_{eq})	Applicable Noise Standard1 (Base Ambient Noise Level + 5) (dBA) (Daytime (7 a.m. to 10 p.m.) / Nighttime (10 p.m. to 7 a.m.))	Applicable Noise Standard Exceeded?
HVAC	Southern Property Line	Industrial	58	70/70	No
HVAC	Nearest Sensitive Receptor	Residential	27	50/40	No

Source: Appendix I.
1 Section 9.73.050-A (External and Internal Noise Standards), Town of Apple Valley Municipal Code.

Parking Lot Activity

A comprehensive study of noise levels associated with surface parking lots was published in the Journal of Environmental Engineering and Landscape Management (Baltrënas et al. 2004). The study found that average noise levels during the peak period of use of the parking lot (generally in the morning with arrival of commuters, and in the evening with the departure of commuters), was 47 dBA at 1 meter (3.28 feet) from the outside boundary of the parking lot. The parking area would function as an area source for noise, which means that noise would attenuate at a rate of 3 dBA with each doubling of distance. The nearest employee parking lot to the noise-sensitive receivers (residences to the south) is proposed to be situated on the south side of Building 1, approximately 1,300 feet from the residential property boundary. At a distance of 4,000 feet, parking lot noise levels would be approximately 16 dBA; this is well below the City's Municipal Code standard for maximum noise levels during the nighttime hours for residential zones of 40 dBA, and well below the measured ambient noise levels.

Truck Loading Dock/Truck Yard Activity

The aforementioned parking lot study (Baltrënas et al. 2004) also examined noise levels associated with cargo truck delivery activity. The study concluded that maximum noise levels from truck loading/unloading areas was 96 dBA at 1 meter (3.28 feet) from the boundary of the truck activity area. Time-averaged noise levels would be lower and would agree with a 64 dBA L_{eq} at 50 feet used to define these individual sources. Truck loading docks would be located not closer than 4,000 feet from the nearest residential property line (located to the south). The truck loading dock area would function as a point source for noise, which means that noise would attenuate at a rate of 6 dBA with each doubling of distance. Using the outdoor attenuation rate of 6 dBA with each doubling of distance, truck loading activity at residences to the north would produce noise levels of approximately 34 dBA L_{eq}, which would be below the City's Municipal Code standard for maximum noise levels during the nighttime hours for residential zones and well below the measured ambient noise levels. Therefore, impacts associated with truck loading docks and truck yard noise would be less than significant.

Combined On-Site Operations Noise Emission

The combination of the parking lot noise (approximately 16dBA L_{eq}),the HVAC equipment level (27 dBA L_{eq}), and the truck yard activity (34 dBA L_{eq}) would be approximately 35 dBA L_{eq},[3] which is below the applicable limits (i.e., the

3 Because noise levels are summed in the energy (that is, the logarithmic) domain, a noise level that is 10 decibels or more lower than another noise level becomes negligible, because the sound energy from the higher noise source is completely dominant.

residential-zoned properties) of 50 dBA L_{eq} daytime (7:00 a.m. to 10:00 p.m.) and 40 dBA L_{eq} nighttime (10:00 p.m. to 7:00 a.m.). Therefore, impacts associated with combined on-site noise would be less than significant.

In summary, the Project would have operational noise levels less than the applicable noise standards, and would not result in a significant increase in noise levels in the Project vicinity. Consequently, operational noise impacts would be less than significant.

Threshold B: Would the Project result in generation of excessive groundborne vibration or groundborne noise levels?

Less-than-Significant Impact. During operation, no major sources of groundborne vibration are anticipated. Construction activities that might expose persons to excessive groundborne vibration or groundborne noise could cause a potentially significant impact. Groundborne vibration information related to construction activities (including demolition) has been collected by Caltrans (Caltrans 2020). Information from Caltrans indicates that continuous vibrations with a PPV of approximately 0.1 ips begin to annoy people. The heavier pieces of construction equipment, such as bulldozers, would have PPVs of approximately 0.089 ips or less at a distance of 25 feet (FTA 2018). Groundborne vibration is typically attenuated over short distances. At the distance from the nearest vibration-sensitive receivers (residences located to the east) to where construction activity would be occurring on the Project site (approximately 4,000 feet), and with the anticipated construction equipment, the PPV vibration level would be approximately 0.00004 ips. At the closest sensitive receptors, vibration levels would be well below the Town's Municipal Code vibration threshold of perception of 0.01 ips, as well as Caltrans' threshold of annoyance of approximately 0.1 ips; therefore, impacts associated with vibration-generated perception and annoyance would be less than significant.

The major concern with regards to construction vibration is related to building damage, which typically occurs at vibration levels of 0.5 ips or greater for buildings of reinforced-concrete, steel, or timber construction. As discussed above, the highest anticipated vibration levels at vibration-sensitive uses from with on-site Project construction would be approximately 0.00004 ips, which would be well below the threshold of 0.5 ips for building damage. Therefore, impacts associated with vibration-produced damage 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.

No Impact. The Project site is not located within the vicinity of a private airstrip. The closest public airport to the Project site is the Apple Valley Airport, which is located approximately 4.2 miles east of the Project site. Therefore, no impacts associated with airport and aircraft noise would occur.

4.11.5 Mitigation Measures and Level of Significance After Mitigation

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?

Short-Term Construction Impacts

The Project would result in less-than-significant impacts with regard to short-term construction noise. No mitigation is required.

Long-Term Operational Impacts

The Project would result in less-than-significant on-site operational impacts as well as less-than-significant off-site operational traffic noise impacts. As such, no mitigation is required.

Threshold B: Would the Project result in generation of excessive groundborne vibration or groundborne noise levels?

The Project would result in less-than-significant impacts with regard to groundborne vibration and groundborne noise levels. No mitigation is required.

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 would result in no impact with regard to excessive airport noise levels. No mitigation is required.

4.11.6 References Cited

Baltrënas, P., D, Kazlauskas, and E. Petraitis. 2004. "Testing on Noise Levels Prevailing at Motor Vehicle Parking Lots and Numeral Simulation of its Dispersion." Journal of Environmental Engineering and Landscape Management 12 (2): 63–70.

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Town of Apple Valley. 2009. General Plan Noise Element (Chapter IV, Environmental Hazards). 2009.

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SOURCE: County of San Bernardino; Open Street Map; ESRI World Imagery 2022

DUDEK

0 1,000 2,000 Feet

FIGURE 4.11-1

Noise Measurement and Modeling Locations

Inland Empire North Logistics Center Apple Valley Project

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4.12 Public Services

This section describes the existing public services conditions of the Project site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed Inland Empire North Logistics Center Apple Valley Project (Project).

4.12.1 Existing Conditions

Fire Protection

Fire protection and emergency response services for the Project site are provided by the Apple Valley Fire Protection District (the Fire Protection District). The Fire Protection District operates seven fire stations within the Town, with the closest being Station 332 (18857 Highway 18), located approximately 2.7 miles southeast of the Project site (Town of Apple Valley 2009).

The Fire Protection District maintains a mutual aid agreement with Victorville, San Bernardino County Fire Department, and the Bureau of Land Management. The mutual aid agreements provide a mechanism for coordinated strategic and facilities planning between fire departments in the region to actively support one another regardless of geographic or jurisdictional boundaries. A joint dispatch center is located in Victorville that serves the mutual aid agencies. The Apple Valley Fire Marshal provides project review services for all new development (Town of Apple Valley 2009).

Police Protection

Police protection and emergency response services for the Project site are provided by the San Bernardino County Sheriff's Department. The sheriff's department operates one station within the Town, Apple Valley Patrol Station (14931 Dale Evans Parkway), which is located approximately 5 miles southeast of the Project site. The Sheriff's Department assigns staff to the Apple Valley Police Department (AVPD). The Apple Valley Patrol Station is comprised of approximately 51 officers and 13 general employees (San Bernardino County Sheriff's Department 2022). The Sheriff's Department prefers a ratio of one police officer per 1,500 population. The average response time for highest priority emergency calls is 5 minutes (Town of Apple Valley 2009).

4.12.2 Relevant Regulations, Plans, Policies, and Ordinances

Federal

There are no applicable federal regulations for this issue area.

State

California Fire Code

The California Fire Code is Chapter 9 of Title 24 of the California Code of Regulations. The California Fire Code provides regulations for safeguarding life and property from fire and explosion hazards derived from the storage, handling, and use of hazardous substances, materials, and devices. The provisions of this code apply to construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location,

maintenance, removal, and demolition of every building or structure or any appurtenance connected or attached to such building structures throughout the state.

Uniform Fire Code

The Uniform Fire Code contains regulations relating to construction, maintenance, and use of buildings. Topics addressed in the code include fire department access, fire hydrants, automatic storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings and the surrounding premises. The code contains specialized technical regulations related to fire and life safety.

California Health and Safety Code

State fire regulations are set forth in Section 13000 et seq. of the California Health and Safety Code, including regulations for building standards (also set forth in the California Building Code), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training.

California Occupational Safety and Health Administration

In accordance with California Code of Regulations Title 8, Section 1270, Fire Prevention, and Section 6773, Fire Protection and Fire Equipment, the California Occupational Safety and Health Administration has established minimum standards for fire suppression and emergency medical services. The standards include guidelines on the handling of highly combustible materials; fire hose size requirements; restrictions on the use of compressed air; requirements for access roads; and guidelines for testing, maintaining, and using all firefighting and emergency medical equipment.

Mutual Aid Agreements

The California Disaster and Civil Defense Master Mutual Aid Agreement, as provided by the California Emergency Services Act, provides statewide mutual aid between and among local jurisdictions and the state. The statewide mutual aid system exists to ensure that adequate resources, facilities, and other supports are provided to jurisdictions whenever resources prove to be inadequate for a given situation. Each jurisdiction controls its own personnel and facilities but can give and receive help whenever needed.

Local

Town of Apple Valley General Plan

The Town's General Plan contains the following goals and policies applicable to public services.

Police and Fire Protection Element

Goal**:** The highest possible level of services and quality for fire and police protection to ensure the preservation and protection of the health, welfare and property for all types of development and socio-economic segments of the community.

Policy 1.A: The Town shall review all new development proposals, as well as significant remodeling projects to determine potential impacts to public safety and the provision of police and fire protection services.

Policy 1.B: All proposed development shall be designed to provide unencumbered access for police, fire, and paramedic vehicles, to the satisfaction of the Sheriff's Department and the Fire Marshal.

Policy 1.C: The Town shall remain flexible when considering the most effective means of providing police and fire protection services to the community, and shall conduct periodic reviews to evaluate the level, quality, cost-effectiveness and innovation of those services, including those provided on a contractual basis.

Policy 1.E: The Town shall utilize the process of reviewing development and building plans, and of conducting building inspections, to strictly enforce fire standards and regulations.

Policy 1.G: Special on-site fire protection measures may be required for well-vegetated areas where slopes are 10 percent or greater and which have potential to either lack sufficient water supplies or water pressure, and/or have access problems. These measures shall be specified during project review.

Policy 1.H: The Fire Protection District shall maintain a 6-minute response time, or as close thereto as possible.

Policy 1.I: The Fire Protection District shall maintain a level of service that ensures the provision of 1 fire personnel per 1,500 residents, or as close thereto as possible.

Policy 1.J: New and substantially remodeled development shall incorporate crime prevention design techniques, including the use of "defensible space," high security hardware, optimal site planning and building orientation, and other design approaches to enhance security.

Policy 1.O: The Sheriff's Department shall maintain a level of service that ensures the provision of 1 sworn officers per 1,500 residents, or as close thereto as possible.

Town of Apple Valley Municipal Code

Chapter 3.32 (Fire Suppression Development Fee Program) of the Municipal Code provides a means to finance the fire suppression facilities, vehicles, and equipment, which applies to all new construction in the Town of Apple Valley. As per Section 3.32.030 (Imposition and payment of fees) fees must be paid to the Town before the issuance of a building permit to cover the costs associated with fire protection services.

4.12.3 Thresholds of Significance

The significance criteria used to evaluate the Project impacts to public services are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to public services would occur if the project would:

A. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental 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:
    - Fire protection.
    - Police protection.
B. Result in cumulatively considerable public service impacts.

Schools, parks and other public facilities (under Threshold A) were analyzed in the Initial Study (Appendix A) and were not carried forward for further analysis in this EIR. See Chapter 5, Effects Found Not To Be Significant, for additional detail.

4.12.4 Impacts Analysis

Threshold A: Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental 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:

Fire protection?

Less Than Significant Impact. Fire protection requirements are based on the number of residents and workers in the Fire Protection District service areas. Service demand is primarily tied to population, not building size, because emergency medical calls typically make up the majority of responses provided by the fire department. As the number of residents and workers increases, so does the number of emergency medical calls. There are no residential uses proposed as a part of the Project. Therefore, no residents would occupy the Project site and an increase in service demands as a result of an increase in residential uses would not occur.

Service demands as a result of personnel on site could occur during construction of the proposed Project. Typically, service demands per employee are less than service demands per resident. Nevertheless, the addition of construction personnel on the Project site would result in an increase in demand for fire protection services. While this would be an increase above existing levels, the presence of construction workers on the site would be temporary, and cease after construction of the proposed warehouse facility is complete. It would therefore not substantially increase the service demand for fire protection services in San Bernardino County.

In addition, the proposed Project would be designed and constructed in accordance with all applicable provisions of the 2019 California Fire Code, which includes requirements for adequate fire flows, width of emergency access routes, turning radii, automatic sprinkler systems, fire alarms, and floor to sky height limits along emergency access routes. As part of the standard development practices, Project plans would be reviewed by the Town and the Fire Protection District, prior to construction. Compliance with fire code standards would reduce the potential demand for fire services by decreasing the likelihood and/or severity of a fire emergency at the site.

Once constructed, the warehouse facility will require full-time personnel for site operations and maintenance. As previously discussed, the nearest Fire Station that would be the first responder to small fire-related incidents at the Project site is Fire Station 332, located at approximately 2.6 miles to the southeast of Project site. As per Policy 1.H of the Police and Fire Protection Element of the Town's General Plan, the Fire Protection District

maintains a 6-minute or less response time. Within the Town's corporate limits, the average response time is 6 minutes and 25 seconds (Town of Apple Valley 2009). In the event that Fire Station No. 332 could not meet the immediate needs of a call for services independently or does not have capability to address the full extent of a larger incident, the other fire stations within the Town or the closest available fire stations in neighboring jurisdictions, as well as CAL FIRE, could respond or provide support.

The proposed Project would be subject to the payment of Development Impact Fees (DIF) as per Chapter 3.32 (Fire Suppression Development Fee Program) of the Town's Municipal Code. This fee would be used for future facility improvements necessary to ensure that the development contributes its fair share of the cost of facilities and equipment determined to be necessary to adequately accommodate new development in the Town. The DIF amount is determined through evaluation of the need for new public service facilities as it relates to the level of service demanded by new development, which varies in proportion to specific land uses. As defined in the Town's Municipal Code, a portion of the DIF ($0.089 per square foot) would be used exclusively toward fire protection services.

The Project site is located within the Fire Protection District's response area, and the department would provide service to the Project site. With the nearby services of Fire Station No. 332, as well as fire stations in neighboring jurisdictions, the Project would be served by sufficient fire protection services, and it is not anticipated that the Project would hinder the Fire Protection District from meeting its response time targets. Additionally, payment of the DIF would ensure the Project contributes a fair share towards future facility improvements and equipment. Therefore, the Project would not result in the need for new or expanded fire protection facilities, and impacts would be less than significant.

Police protection?

Less Than Significant Impact. As described above in Section 4.12.1, Existing Conditions, police services are provided via contractual agreement with the San Bernardino County Sheriff's Department. Apple Valley Patrol Station (14931 Dale Evans Parkway) located approximately 4.75 miles southeast of the Project site would provide primary law enforcement services to the Project site.

The Project site is located in a relatively remote location surrounded by undeveloped land and scattered development. It is therefore unlikely to attract attention that would make Project facilities susceptible to crime. Therefore, a large increase for police protection services is not expected.

Construction activities may temporarily increase traffic volumes along I-15 and nearby roadways during the construction period. The added traffic associated with workers commuting to the Project site, haul routes, deliveries, and other Project-related activities may increase the need for law enforcement services during construction of the proposed Project. However, this would be temporary and would not have a significant adverse effect on the AVPD protective service provision or California Highway Patrol's ability to patrol the highways.

A need for new or expanded public services, such as police facilities, is typically associated with a population increase. The proposed Project does not include the construction of new homes. While the proposed Project would lead to increased employment on site, the proposed Project would not induce substantial population growth. Furthermore, the proposed Project would incorporate operational practices and design elements to increase on-site safety and to reduce the potential for crime to occur. During operation, practices to increase safety could include security lighting, alarms, and security cameras. Project design would also employ defensible design, lighting, and landscaping, as well as open fencing. These techniques would minimize spaces that are hidden from public view, which would help prevent loitering and crime. Building entries, parking areas, and

walkways would be sufficiently lit, which would facilitate safe pedestrian movement. These design practices and operational practices would lessen the demand for police protection services at the Project site by reducing the potential for crime to occur.

Police units are continuously mobile, and service calls are responded to by the nearest available mobile unit. As previously discussed, AVPD's average response time for highest priority emergency calls is 5 minutes. Further, the police service ratio is one police officer per 1,500 population, which would not be impacted from the proposed Project. Therefore, it is not anticipated that the Project would hinder the AVPD from continuing to meet or exceed target response times and provide adequate service levels.

The proposed Project would be subject to the payment of DIF as per the Town's Municipal Code. This fee would be used for future facility improvements necessary to ensure that the development contributes its fair share of the cost of facilities and equipment determined to be necessary to adequately accommodate new development in the Town. The DIF amount is determined through evaluation of the need for new public service facilities as it relates to the level of service demanded by new development, which varies in proportion to specific land uses. As defined in the Town's Municipal Code, a portion of the DIF ($0.001 per square foot) would be used exclusively toward law enforcement facilities.

Additionally, the proposed Project would be consistent with or would not hinder implementation of the Town's General Plan goals and policies pertaining to police protection services listed in Section 4.12.2, Relevant Regulations, Plans, Policies, and Ordinances. As substantiated in this analysis, the proposed Project is not anticipated to adversely affect service ratios or response times for police services such that new or expanded police facilities would be required. Therefore, the proposed Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered police facilities, or the need for new or physically altered police facilities; impacts would be less than significant.

Threshold B: Would the Project result in cumulatively considerable public service impacts?

Less Than Significant Impact. Cumulative impacts are two or more individual impacts that, when considered together, are considerable or that compound or substantially increase other environmental impacts. Cumulative impacts for a project are considered significant if the incremental effects of the individual projects are considerable when viewed in connection with the effects of past projects, and the effects of other projects located in the vicinity of the Project site. The cumulative study area is based on the service area for each of the fire, sheriff and other governmental offices/facilities serving the Project site. As discussed above, fire and sheriff service impacts related to the proposed Project would be less than significant. Compliance with the appropriate general plan policies regarding service ratios and response times along with the payment of DIFs, any slight contribution to the Project related needs for additional fire or law enforcement protection services would be appropriately funded. Similar to the proposed Project, all other past, present, and reasonably foreseeable future projects located within these fire and sheriff service areas were or would be required to pay this mitigation fee.

In addition, the proposed Project would not increase demand for local schools, parks, or public facilities. Since impacts were not found to be significant in the initial study, further analysis was not performed on this issue. Thus, the Project would not cumulatively combine with related projects to have an impact on these facilities. Furthermore, cumulative projects would also be required to undergo environmental review, in compliance with the requirements of CEQA. Should potential impacts to public services be identified, appropriate mitigation would be prescribed that would reduce impacts to less-than-significant levels.

Because the Project would not create a significant impact on public services, and the other related projects would also be expected to avoid or mitigate impacts on public services, the Project would comply with the goals, policies, and implementation measures of the Town's General Plan; thus, cumulatively significant impacts are anticipated to be less than significant. Therefore, the Project would not create a cumulatively considerable impact related to public services and cumulative impacts would be less than significant.

4.12.5 Mitigation Measures and Level of Significance After Mitigation

Fire protection?

The Project would result in **less-than-significant impacts** with regard to fire protection services. No mitigation measures are required.

Police protection?

The Project would result in **less-than-significant impacts** with regard to police protection services. No mitigation measures are required.

Threshold B: Would the Project result in cumulatively considerable public service impacts?

The Project would result in **less-than-significant** cumulative impacts with regard to public services. No mitigation measures are required.

4.12.6 References Cited

San Bernardino County Sheriff's Department. 2022. Apple Valley Patrol Station. Accessed April 2022. https://wp.sbcounty.gov/sheriff/patrol-stations/apple-valley/.

Town of Apple Valley. 2009. Town of Apple Valley General Plan. Chapter 5: Public Services and Facilities. https://www.applevalley.org/home/showpublisheddocument/4895/635611242901270000. Accessed on July 21, 2022.

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4.13 Transportation

This section describes the existing transportation conditions of the Project site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed Project.

In addition to the documents incorporated by reference (see Section 2.7, Documents Incorporated by Reference, of this environmental impact report [EIR]), the following analysis is based, in part, on the following sources:

- Final Focused Traffic Impact Analysis Report for the Proposed Inland Empire North Logistics Center prepared by David Evans and Associates in 2023 (Appendix J).

Comments received in response to the Notice of Preparation (NOP) included concerns regarding the potential for truck traffic to travel through residential areas and ensuring roadways and bicycle facilities are built to appropriate and current standards (including Caltrans Contextual Guidance for Preferred Bicycle Facilities) so that no hazardous conditions are created. All of the concerns raised are addressed in this section. A copy of the NOP and comments received is provided in Appendix A.

4.13.1 Existing Conditions

This section provides a summary of the existing circulation network, bicycle and pedestrian facilities, transit service, and truck routes in the study area. It also provides a summary of the baseline vehicle miles traveled (VMT) for projects in the Town of Apple Valley using the San Bernardino County Transportation Authority's (SBCTA) San Bernardino Transportation Analysis Model (SBTAM).

Existing Circulation Network

Figure 4.13-1, Existing Circulation Plan, provides the Town of Apple Valley General Plan Traffic Circulation Plan. Regional access to the site would be provided from Interstate (I) 15. Characteristics of the primary roadways within the study area are described below. A map of the Town's designated truck routes is also provided as Figure 4.13-2, Designated Truck Routes.

- I-15 is a north-south, divided, four to eight-lane freeway located to the west of the Project site. I-15 is a major interstate freeway that begins near the Mexico—US Border and extends to Alberta, Canada, and serves as a critical connection for many other regional roadways, freeways, and highways. Caltrans classifies I-15 as a designated truck route on the National Network (STAA). Within the vicinity of the Project site, access to I-15 is provided at Quarry Road/Stoddard Wells Road to the north of the Project and Outer Highway 15 S (I-15 northbound ramps) and Stoddard Wells Road/Frontage Road (I-15 southbound ramps).
- Stoddard Wells Road is generally aligned in a north-south direction, with two lanes. It is an undivided rural road with unpaved shoulders and a designated truck route in the Town of Apple Valley. Stoddard Wells Road alternates between the west side of I-15 and the east side of I-15. Stoddard Wells is proposed to be upgraded from a Major Road to a Major Divided Arterial per the Town of Apple Valley General Plan Circulation Element as noted in Table 4.13-1.
- Quarry Road, on the west side of I-15, is a north-south two-lane paved road between Stoddard Wells Road and the I-15 southbound ramps. North of the I-15 ramps, Quarry Road is an unpaved rural road. Upgrades to this section of Quarry Road within the Town limits are identified in Table 4.13-1. Additionally, Quarry Road

extends east-west (on the east side of I-15) from I-15 to the eastern Town boundary, north of the Project site. Additionally, although Quarry Road is not considered a truck route at this time, the Town's Circulation Element proposes its designation as a through truck route.

- Outer Highway 15 is a north-south two-lane road that parallels I-15 to the east and terminates at the I-15 northbound ramp intersection at Stoddard Wells Road. The Project would extend Outer Highway 15 along the western boundary of the Project Site. Outer Highway 15 is proposed to be extended along the east side of I-15 between Stoddard Wells Road and Dale Evans Parkway per the Town of Apple Valley General Plan Circulation Element. The extension would be classified as a Secondary Road as noted in Table 4.13-1.
- Falchion Road is an east-west two-lane road between Outer Highway 15 on the west and Apple Valley Road on the east. Falchion Road is a Major Road per the Town of Apple Valley General Plan Circulation Element as noted in Table 4.13-1. Falchion Road is also proposed to be extended east to Choco Road. Access to the site is proposed via four driveways on Falchion Road.
- Norco Street is a proposed east-west road between Outer Highway 15 on the west to east of Apple Valley Road. Norco Street is classified as a Major Road per the Town of Apple Valley General Plan Circulation Element. As part of the Project, Norco Street is proposed to be reclassified from a Major Road to a Collector, along the Project frontage. Access to the site is proposed via four driveways on Norco Street.
- Apple Valley Road is a north-south two-lane road that currently ends at Falchion Road near the proposed site. Apple Valley Road is classified as a Major Divided Arterial per the Town of Apple Valley General Plan Circulation Element. As part of the Project, Apple Valley Road is proposed to be realigned to the east along the Project's eastern Project boundary. Access to the site is proposed via one driveway on Apple Valley Road.

Truck Routes

San Bernardino County has identified two types of truck routes: National Network and Terminal Access. The I-15 freeway is considered part of the National Network. Terminal Access routes allow travel by trucks meeting Surface Transportation Assistance Act standards between National Network routes and access to an operating, destination, origination or handling facility. In addition to the regional truck routes defined by the County of San Bernardino, the Town of Apple Valley has also identified several key truck routes, including Outer Highway 15, Apple Valley Road, Dale Evans Parkway, Navajo Road, Stoddard Wells Road, Quarry Road, Johnson Road, Waalew Road, and Yucca Loma Road. Project-related trucks would travel on the County and Town of Apple Valley designated truck routes, including Outer Highway 15 to I-15 at Stoddard Wells Road and on Apple Valley Road to I-15 at Quarry Road.

Rail Service and Transit

The Town of Apple Valley is served by bus services provided by Victor Valley Transit Authority (VVTA), which provides regional and local services throughout Victor Valley. Regionally, the Town is served by passenger rail services offered by the National Railroad Passenger Corporation (Amtrak). Victor Valley and its neighboring communities are also expected to benefit from the development of Brightline West, a high-speed passenger rail system that will connect Los Angeles with Las Vegas and will include a stop in Victor Valley (Brightline West 2023). The rail and transit providers are described below.

Amtrak

Amtrak is a national rail operator, with 21,000 route miles in 46 states, the District of Columbia, and three Canadian Provinces. Amtrak operates more than 300 trains each day to more than 500 destinations. Amtrak is the chosen operator for state-supported corridor services in 17 states and four commuter rail agencies (Amtrak 2022a). The closest

passenger rail station is the Victorville Amtrak Station, located at 16858 South D Street in Victorville, located approximately 3 miles southwest of the Project site. The Victorville Amtrak Station is part of the Southwest Chief Route, an east-west rail line extending from Los Angeles, California, to Chicago, Illinois (Amtrak 2022b).

Brightline West

Brightline West is a proposed high-speed passenger rail system that would be designed to connect the extended communities of Los Angeles, Palmdale, Cajon Pass, Victor Valley with Las Vegas through 200 to 300 miles of rail. At full operations, approximately 11 million one-way trips are expected to be made between southern California and Las Vegas. The Project is expected to break ground at the end of 2023 and could begin serving passengers in 2026. Brightline West has acquired property in the newly annexed area of Apple Valley near Dale Evans Parkway for a high-speed rail station (Town of Apple Valley 2023).

Victor Valley Transit Authority

VVTA provides local bus service for the communities of Adelanto, Apple Valley, Hesperia, Victorville, and unincorporated areas of San Bernardino County. VVTA operates five bus routes in Apple Valley, providing bus connections between shopping, the Apple Valley Post Office, schools and colleges, and residential areas. Route 22 shown in Figure 4.13-3, Existing Transit Facilities, is the closest bus route to the Project site, with a bus stops located north of the Stoddard Wells Road overpass approximately 1.75 miles southwest of the Project site. Route 22 connects Helendale, Bryman, La Delta, Oro Grande, and Victorville. The route operates weekdays, between 6:00 a.m. and 8:00 p.m., Saturday between 7:00 a.m. and 7:50 p.m., and Sunday between 8:00 a.m. and 5:00 p.m. (VVTA 2023).

VVTA also offers paratransit services for persons with special needs on any paved street within Apple Valley as long as it is within their service boundaries. The VVTA paratransit services do not travel a fixed route and provide a flexible alternative to the fixed bus routes (VVTA 2023).

Bicycle and Pedestrian Facilities

The Project site is located in an undeveloped area of the town with no existing pedestrian or bicycle facilities in the immediate vicinity of the sites. The Apple Valley General Plan (Town of Apple Valley 2009) has an adopted Recreation Trail System, which identifies “lifeline” trails for equestrian use and multi-use, as well as recorded bridle trails (for horses). The Town’s Recreational Trail System is presented as Figure 4.13-4, Recreational Trail System. A lifeline trail is proposed on Stoddard Wells Road, west and north of the site, extending from Johnson Road to Central Road.

The General Plan also identifies proposed bike paths to ensure greater connectivity and access throughout the community, and promote non-motorized modes of travel. The Town’s Bike Paths are presented as Figure 4.13-5, Bike Paths. A Class II bike lane (on-street painted bike lane) is proposed along Outer Highway 15 S between Norco Street and Stoddard Wells Road and along Stoddard Wells Road, between the I-15 and Alembic Street. A Class I (separated bicycle path) is proposed along Stoddard Wells Road, between Alembic Street and Central Road, consistent with the lifeline trail identified in the Town’s Recreational Trail System. A Class I bike path is also proposed along Norco Street between Outer Highway 15 S and Dachshund Avenue and on Falchion Road between Apple Valley Road and Choco Road.

Baseline VMT

The project VMT analysis was conducted using the Town of Apple Valley Resolution "Resolution No. 2021-08, A Resolution of the City of The Town of Apple Valley, California, Adopting Thresholds of Significance for Vehicle Miles Traveled (VMT) Under the California Environmental Quality Act (CEQA)" adopted during the Town Council Meeting, May 11, 2021.

The San Bernardino Transportation Analysis Model (SBTAM) model was used to estimate Project-generated VMT for both baseline (2016) and horizon year (2040) scenarios, which is the recommended model for conducting VMT analysis for land use projects within the region as it considers interaction between different land uses based on socio-economic data, such as population, households, and employment. SBTAM is a travel forecasting model that represents a sub-area (San Bernardino County) of the Southern California Association of Governments (SCAG) regional traffic model and was designed to provide a greater level of detail and sensitivity in the San Bernardino County area as compared to the regional SCAG model. The SBTAM model was therefore chosen as the appropriate modeling tool to prepare VMT estimates for the Project.

Consistent with the Town's VMT Guidelines, Project-generated VMT has been estimated using the Origin/Destination (O/D) method and Boundary method. The O/D method is used because it provides a more complete capture of all travel (car and truck trips) within the study area, including trips that may begin or end outside of the study area. Also consistent with the Town's VMT Guidelines, VMT has been presented as total VMT and total VMT per Service Population. Total VMT represents all VMT generated in the Town of Apple Valley on a typical weekday. Total VMT per service population is an efficiency metric representing VMT generated on a typical weekday per person who lives and/or works in the Town or travels to the Town for another purpose. Per the Town's significance criteria, a project would result in a significant project-generated VMT impact if it exceeds the Town of Apple Valley General Plan Buildout VMT per service population. As further discussed in Section 4.13.4, Impact Analysis, the Town's General Plan Buildout VMT per service population is 33.2, and is therefore used as the "baseline" for which to identify impacts.

4.13.2 Relevant Regulations, Plans, Policies, and Ordinances

The following section describes state and local regulations, plans, policies, and ordinances relevant to the study area. There are no transportation-specific federal regulations applicable to the Project.

State

Senate Bill 743

On September 27, 2013, Governor Brown signed SB 743, which became effective on January 1, 2014. SB 743 streamlines the review under the CEQA process for several categories of development projects, including the development of infill projects in transit priority areas to balance the needs of congestion management with statewide goals related to infill development, promotion of public health through active transportation, and reduction of greenhouse gas (GHG) emissions. SB 743 adds Chapter 2.7: Modernization of Transportation Analysis for Transit Oriented Infill Projects to the CEQA Statute (PRC Section 21099). Section 21099(d)(1) provides that aesthetic and parking impacts of a residential, mixed-use residential, or employment center project on an infill site within a transit priority area shall not be considered significant impacts on the environment. In addition, SB 743 mandates that alternative metric(s) for determining impacts relative to transportation shall be developed to replace the use of level of service (LOS) in CEQA documents.

In the past, environmental review of transportation impacts focused on the delay that vehicles experience at intersections and on roadway segments, often measured using LOS. Mitigation for impacts on vehicular delay often involves increasing capacity such as widening a roadway or the size of an intersection, which in turn encourages more vehicular travel and greater pollutant emissions. Additionally, improvements to increase vehicular capacity can often discourage alternative forms of transportation such as biking and walking. SB 743 directed OPR to develop an alternative metric(s) for analyzing transportation impacts in CEQA documents. The alternative shall promote the state's goals of reducing GHG emissions and traffic-related air pollution, promote the development of multimodal transportation system, and provide clean, efficient access to destinations.

Pursuant to SB 743, OPR released the draft revised CEQA Guidelines in November 2017, recommending the use of VMT for analyzing transportation impacts. Additionally, OPR released Updates to Technical Advisory on Evaluating Transportation Impacts in CEQA, to provide guidance on VMT analysis. In this Technical Advisory, OPR provides its recommendations to assist lead agencies in screening out projects from VMT analysis and selecting a significance threshold that may be appropriate for their jurisdictions. While OPR's Technical Advisory is not binding on public agencies, CEQA allows lead agencies to "consider thresholds of significance … recommended by other public agencies, provided the decision to adopt those thresholds is supported by substantial evidence" (State CEQA Guidelines Section 15064.7[c]).

In December 2018, the CEQA Guidelines were updated to add new Section 15064.3, Determining the Significance of Transportation Impacts, that describes specific considerations for evaluating a project's transportation impacts using the VMT methodology.

CEQA Guidelines Section 15064.3(b) is divided into four subdivisions as follows:

1. **Land Use Projects.** Vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact. Generally, projects within one-half mile of either an existing major transit stop or a stop along an existing high quality transit corridor should be presumed to cause a less than significant transportation impact. Projects that decrease vehicle miles traveled in the project area compared to existing conditions should be presumed to have a less than significant transportation impact.
2. **Transportation Projects.** Transportation projects that reduce, or have no impact on, vehicle miles traveled should be presumed to cause a less than significant transportation impact. For roadway capacity projects, agencies have discretion to determine the appropriate measure of transportation impact consistent with CEQA and other applicable requirements. To the extent that such impacts have already been adequately addressed at a programmatic level, such as in a regional transportation plan EIR, a lead agency may tier from that analysis as provided in Section 15152.
3. **Qualitative Analysis.** If existing models or methods are not available to estimate the vehicle miles traveled for the particular project being considered, a lead agency may analyze the project's vehicle miles traveled qualitatively. Such a qualitative analysis would evaluate factors such as the availability of transit, proximity to other destinations, etc. For many projects, a qualitative analysis of construction traffic may be appropriate.
4. **Methodology.** A lead agency has discretion to choose the most appropriate methodology to evaluate a project's vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's vehicle miles traveled and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate vehicle miles traveled and any revisions to model outputs should be documented and explained in the environmental document prepared for the project.

OPR's regulatory text indicates that the guidelines must be implemented statewide by July 1, 2020. However, the OPR Technical Advisory allows local agencies to retain their congestion-based LOS standards in general plans and for project planning purposes. This EIR relies on VMT as the basis for evaluating transportation impacts under CEQA, and the Project's LOS effects have been documented in the Traffic Impact Analyses prepared for the proposed Project and provided to the Town (see Appendix J).

Sustainable Communities Strategies: 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 emissions through coordinated transportation and land use planning with the goal of more sustainable communities. Under the Sustainable Communities Act, the California Air Resources Board sets regional targets for greenhouse gas emissions reductions from passenger vehicle use. In 2010, the California Air Resources Board established these targets for 2020 and 2035 for each region covered by one of the state's Metropolitan Planning Organizations (MPOs). The California Air Resources Board 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 greenhouse gas emission reduction targets. Once adopted by the MPO, the RTP/SCS guides the transportation policies and investments for the region. California Air Resources Board must review the adopted SCS to confirm and accept the MPO's determination that the SCS, if implemented, would meet the regional greenhouse gas targets. If the combination of measures in the SCS would not meet the regional targets, the MPO must prepare a separate alternative planning strategy to meet the targets. The alternative planning strategy is not a part of the RTP. The Project is within the Southern California Association of Governments (SCAG) MPO, which has adopted Connect SoCal (2020–2045 Regional Transportation Plan/Sustainable Communities Strategy) as their SCS, as discussed below.

The Sustainable Communities Act also establishes incentives to encourage local governments and developers to implement the SCS or the alternative planning strategy. Developers can get relief from certain CEQA requirements if their new residential and mixed-use projects are consistent with a region's SCS (or alternative planning strategy) that meets the targets (see California Public Resources Code Sections 21155, 21155.1, 21155.2, 21159.28).

Caltrans

As the owner and operator of the State Highway System, Caltrans implements established state planning priorities in all functional plans, programs, and activities. Caltrans has the responsibility to coordinate and consult with local jurisdictions when proposed local land use planning and development may impact state highway facilities. To comply with SB 743 implementation, the Caltrans Transportation Impact Study Guide (Caltrans 2020a), replaced the Guide for the Preparation of Traffic Impact Studies (Caltrans 2002). Per the 2020 Transportation Impact Study Guide, Caltrans' primary review focus is VMT, replacing LOS as the metric used in CEQA transportation analyses. Caltrans recommends use of OPR's recommended thresholds and guidance on methods of VMT assessment found in OPR's Technical Advisory (OPR 2018). In addition to VMT, Caltrans has developed an Interim Local Development and Intergovernmental Review Safety Review Practitioners Guidance (December 2020), which may request a targeted operational and safety analysis to address a specific geometric or operational issue related to the State Highway System and connections with the State Highway System (Caltrans 2020b).

Regional

Southern California Association of Governments Regional Transportation Plan/Sustainable Communities Strategy

The Southern California Association of Governments (SCAG) 2020–2045 RTP/SCS (also known as the Connect SoCal Plan) was made available in March 2020 and presents the land use and transportation vision for the region through the year 2045, providing a long-term investment framework for addressing the region's challenges (SCAG 2020). Connect SoCal 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 within the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. The SCAG RTP/SCS lays the framework for sustainable development in the SCAG region, which includes the Town of Apple Valley. Priorities of the plan include increasing investment in transit and investing in transportation strategies and projects that will result in improved air quality, public health, and reduced greenhouse gas emissions. The Proposed Final Connect SoCal Plan was adopted by SCAG's Regional Council on September 3, 2020.

Regional Funding Mechanisms – Measure "I" Funds

In 2004, the voters of San Bernardino County approved the 30-year extension of Measure "I," a one-half of 1% sales tax on retail transactions, through the year 2040, for transportation projects including, but not limited to, infrastructure improvements, commuter rail, public transit, and other identified improvements. The Measure "I" extension requires that a regional traffic impact fee be created to ensure development is paying its fair share. A regional Nexus study was prepared by SBCTA (SBCTA 2019) and concluded that each jurisdiction should include a regional fee component in their local programs to meet the Measure "I" requirement. The regional component assigns specific facilities and cost sharing formulas to each jurisdiction and was most recently updated in September 2017. Revenues collected through these programs are used in tandem with Measure "I" funds to deliver projects identified in the Nexus Study.

While Measure "I" is a self-executing sales tax administered by SBCTA, the funds raised through Measure "I" have funded in the past, and will continue to fund, new transportation facilities in San Bernardino County, including within the Town of Apple Valley.

San Bernardino County Congestion Management Plan (CMP)

The Project is located in San Bernardino County, and therefore, the San Bernardino County Transportation Authority (SBCTA) Congestion Management Plan (CMP) is applicable (San Bernardino County 2016a). To address the increasing public concern that traffic congestion is impacting the quality of life and economic vitality of the State of California, Proposition 111 created the CMP in 1990. The intent of the CMP is to provide the analytical basis for transportation decisions through the State Transportation Improvement Program (STIP) process. In 1990, the San Bernardino Associated Governments (SANBAG) was designated the CMA for San Bernardino County. Although implementation of the CMP was made voluntary by the passage of AB 2419 (San Bernardino County 2016b), the CMP requirement has been retained in San Bernardino County. The goals of the San Bernardino County CMP are to:

Goal 1: Maintain or enhance the performance of the multimodal transportation system and minimize travel delay.

Goal 2: Assist in focusing available transportation funding on cost-effective responses to subregional and regional transportation needs.

Goal 3: Provide for technical consistency in multimodal transportation system analysis.

Goal 4: Help to coordinate development and implementation of subregional transportation strategies across jurisdictional boundaries.

Goal 5: Anticipate the impacts of proposed new development on the multimodal transportation system, provide consistent procedures to identify and evaluate the effectiveness of mitigation measures and provide for adequate funding of mitigations.

Goal 6: Promote air quality and improve mobility through implementation of land use and transportation alternatives or incentives that reduce both vehicle trips and miles traveled and vehicle emissions

To meet the goals above, the CMP includes a System LOS Element, Performance Measures Element, Land Use/Transportation Analysis Element, Travel Demand Management Element, and a Five-Year Capital Improvement Program.

Local

Town of Apple Valley General Plan Circulation Element

The Circulation Element addresses both the local transportation system within Town, and those segments of the local transportation system that interface with, and serve as extensions of, the regional roadway system connecting the Town of Apple Valley with the broader Victorville Valley region and other communities in Southern California. The Element also describes alternative means of transportation, such as bicycle, equestrian and pedestrian travel through Town. The Circulation Element provides maps to guide the orderly development of all aspects of the transportation system, as well as goals, policies and programs that correlate the Town's transportation system with the types, intensities and locations of land uses within the planning area.

The Town of Apple Valley General Plan Circulation Element contains the following goals, policies, and programs applicable to transportation and the Project:

Goal: The Town shall continue to maintain and expand a safe and efficient circulation and transportation system.

Policy 1.A: The street system recommended in the Town's Circulation Map shall be strictly implemented.

Program 1.A.1: Street rights of way shall be provided as follows:

- 142 feet for a Major Divided Parkway
- 128 feet for Major Divided Arterials
- 104 feet for Major Roadways
- 88 feet for Secondary Roadways
- 60-66 feet for Collector Streets
- 66 feet for Industrial and Commercial Local Streets
- 60 feet for Local Streets
- 50 feet for Rural Streets and Cul-de-Sacs

Policy 1.C: Sidewalks shall be provided on Local Streets of 60 feet in width and on all roadways 88 feet wide or wider. In Rural Residential land use areas designated pathways may be provided as an alternate to sidewalks.

Policy 1.E: Bus pullouts shall be designed into all new projects on arterial roadways, to allow buses to leave the flow of traffic and reduce congestion.

Policy 1.F: Local streets shall be scaled to encourage neighborhood interaction, pedestrian safety and reduced speeds.

Policy 1.H: New development proposals shall pay their fair share for the improvement of street within and surrounding their projects on which they have an impact, including roadways, bridges, and traffic signals.

Policy 1.I: Pedestrian access shall be preserved and enhanced.

Policy 1.J: The Town shall implement a coordinated and connected bicycle lane network consistent with the Bicycle Lane Map in this Element.

Policy 1.K: The Town shall provide for a comprehensive, interconnected recreational trails system suitable for bicycles, equestrians and/or pedestrians.

Policy 1.M: Encourage the expansion of an integrated public transit system

The General Plan Circulation Element also identifies a range of recommended improvements to the local street network to accommodate buildout of the General Plan. Table 4.13-1 presents the roadway improvements that are proposed within the vicinity of the Project site. These improvements would provide additional roadway capacity. The Stoddard Wells Road widening project is currently listed in the Town's Five-Year Capital Improvement Plan (CIP) (Town of Apple Valley 2020), and Falchion Road has been upgraded to a Major Road.

Table 4.13-1. Apple Valley General Plan Recommended Improvements

Roadway	Recommended Improvement
I-15	▪ A future interchange at I-15 and Quarry Road
Outer Highway 15	▪ Extend Outer Highway 15 along the east side of I-15 between Stoddard Wells Road and Dale Evans Parkway. Extension would be classified as a Secondary Road (88-ft. ROW)
Stoddard Wells Road	▪ Between I-15 Freeway and Alembic Street – upgrade from Major Road (104-ft. ROW) to Major Divided Arterial (128-ft. ROW) ▪ between Alembic Street and Johnson Street – upgrade from Major Road to Major Divided Arterial
Quarry Road	▪ Between I-15 Freeway and Stoddard Wells Road – upgrade from Secondary Road (88-ft. ROW) to Major Divided Arterial (128-ft. ROW) ▪ Between Stoddard Wells Road and Dale Evans Road – upgrade from Secondary Road (88' ROW) to Major Divided Arterial (128-ft. ROW)
Falchion Road	▪ Between Apple Valley Road and Tao Road – upgrade from Secondary Road to Major Road

Source: Town of Apple Valley 2009.
Notes: ROW = right-of-way; ft. = foot.

4.13.3 Thresholds of Significance

The significance criteria used to evaluate the Project impacts to transportation are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to transportation would occur if the Project would:

1. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.
2. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).
3. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
4. Result in inadequate emergency access.
5. Result in cumulatively considerable transportation impacts.

4.13.4 Impacts Analysis

Threshold A: Would the Project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

Less-than-Significant Impact. The Project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities, as discussed below. Impacts would be less than significant.

Regional Transportation Plan/Sustainable Communities Strategy

The Project would be consistent with the 2020–2045 RTP/SCS as analyzed in Table 4.9-1 Consistency with 2020–2045 RTP/SCS Goals, under Section 4.9, Land Use and Planning.

San Bernardino County CMP

The Project would be consistent with the applicable goals and elements of the San Bernardino County CMP. The Project would not impede the ability to maintain or enhance the performance of the multimodal transportation system. The Project would include on- and off-site roadway improvements to serve internal circulation needs and minimize impacts to travel delay. None of the proposed improvements would interfere with the existing or potential future improvements to the multimodal transportation system. The Project would participate in the Town's Development Impact Fee program, which is coordinated with regional planning efforts in Victor Valley to meet regional transportation needs and to provide for adequate funding of mitigation for impacts of new development, consistent with the CMP. The CMP System LOS Element and Performance Measures Element also contain LOS standards for CMP designated highways and roadways. However, there are no designated CMP roadways in the Project study area; therefore, the Project would have no impact on these roadways.

Town of Apple Valley General Plan Circulation Element

The Project proposes changes to the Town's circulation system that will require an amendment to the Town's Streets and Road Plan in the Circulation Element of the General Plan. The modifications to the circulation system are illustrated in Figure 4.13- 6, Proposed General Plan Amendment to Circulation Element.

The primary change is the abandonment of the current right of way alignment of Apple Valley Road and realignment of the right of way from Stoddard Wells Road to a point south of Wato Road where it connects back to the current alignment. In addition, the current right of way alignment of Outer Highway 15 will be abandoned and realigned north of Stoddard Wells Road. The reclassification amendments propose to change Norco Street from a Major Road to a Collector Street and change Papago and Wato Roads from Major Roads to Secondary Roads.

Beyond the amendments to the General Plan Circulation system, the proposed Project would be consistent with the applicable goals and policies of the General Plan Circulation Element including policies related to maintaining and expanding a safe and efficient circulation and transportation system. The Project is located in an area with existing warehouse and distribution facilities and takes advantage of the proximity to the I-15 corridor to minimize truck travel through the Town, thereby discouraging traffic to utilize local residential streets for access or parking needs. Truck travel is anticipated to occur on Outer Highway 15 to I-15 at Stoddard Wells Road and on Apple Valley Road to I-15 at Quarry Road.

The Project would also not hinder the Town's ability to provide for a comprehensive, interconnected recreational trails system suitable for bicycles, equestrians and/or pedestrians, nor hinder the Town's ability to expand the public transit system. The Project would include on- and off-site roadway improvements to serve internal circulation needs, as well as to minimize impacts of increased traffic on the existing road system. The Project would also participate in the Town's Development Impact Fee program. Therefore, the Project would be consistent with the Town's General Plan Circulation Element.

Threshold B: Would the Project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Less-than-Significant Impact. The Project would not conflict with CEQA Guidelines Section 15064.3(b) as summarized below.

VMT Screening

The San Bernardino County (2019) Transportation Impact Study Guidelines identifies projects that can be screened from conducting a project-specific VMT analysis. A land use project need only to meet one of the below screening thresholds to result in a less-than- significant impact.

- **Local Serving Development:** Projects which serve the local community and have the potential to reduce VMT should not be required to complete a VMT assessment. These projects include:
  - K-12 schools
  - Local-serving retail less than 50,000 sq. ft.
  - Local parks
  - Day care centers
  - Local serving gas stations
  - Local serving banks
  - Student housing projects
  - Local serving community colleges that are consistent with the assumptions noted in the RTP/SC

The proposed Project does not include any of the land uses above and therefore does not meet this screening criterion.

- **Projects generating less than 110 daily trips:** If a development project generates 110 or less net daily vehicle trips, further analysis is not required, and a less than significant determination can be made. As presented in Appendix J, the proposed Project would generate 8,637 daily passenger car equivalent (PCE) trips. Therefore, the Project does not meet this screening criterion based on its proposed size and land use.
- **Projects located within a Transit Priority Area (TPA):** Projects located within a TPA as determined by the most recent SCAG RTP/SCS. The Project site is not located within 0.5 miles of an existing major transit stop, or along a high-quality transit corridor and therefore does not meet this screening criterion.
- **Projects located within a low VMT generating area.** A project that is located in efficient areas of the County will reduce VMT per person/employee and is beneficial to the region. As presented in Appendix J, the traffic analysis zone in which the Project is located is forecast to generate VMT that exceeds the jurisdictional threshold based on allowed General Plan land uses. Therefore, the Project would not qualify as residing in a low VMT area.

VMT Analysis

The SBTAM model was used to estimate Project-generated VMT for both baseline (2016) and horizon year (2040) scenarios. The SBTAM socioeconomic database for each scenario were updated with the Project land use to calculate Project VMT. The databases were also used to obtain the town's population and employment to estimate service population.

Table 4.13-2 presents the outcome of the Project-generated VMT analyses for the baseline and horizon year scenarios. As shown, in both the baseline and horizon year scenarios, the VMT/service population metric for the Project is less than the Town of Apple Valley's General Plan buildout significance threshold.

Table 4.13-2. Project-Generated VMT Analysis

	2016 Baseline Conditions		2040 Conditions	
Metric	Inland Empire North Logistics Center (project)	Town of Apple Valley General Plan Buildout (Threshold)[1]	Inland Empire North Logistics Center (project)	Town of Apple Valley General Plan Buildout (Threshold)[1]
Population	0	—	0	—
Employment[2]	1,234		1,234	
Service Population	1,234		1,234	
O/D VMT[3]	27,883		26,419	
O/D VMT per SP	22.6	33.2	21.4	33.2

Source: Appendix J.
Notes: VMT = vehicle miles traveled.
1 Source: SBCTA VMT Screening Tool: https://www.gosbcta.com/vmtscreening.
2 Source: SCAG Employment Density Study Summary Report, October 31, 2001 (using 2,111 square feet per employee).
3 The Project's Origin/Destination (O/D) VMT derived from the San Bernardino Traffic Analysis Model (SBTAM).
4 Calculation assumed an average trip length of 30 miles for the additional 9 employees. This is added to the VMT calculated by the model for the Quarry Complex Project. Source of analysis: General Technologies and Solutions (GTS).

The outcome of the second analysis, the Project's effect on town-wide VMT, is presented in Table 4.13-3. The SBTAM model was used to estimate the VMT on all roadways within the Town's limits for the baseline and 2040 scenarios with and without the Project. Using the resulting town-wide VMT, the metric indicating a significant impact (VMT/Service population) at a town-wide scale (Town of Apple Valley 2021) was calculated.

Table 4.13-3 shows that the VMT per Service Population metric under the "with project" conditions compared to the metric under the "without project" conditions in both scenarios does not increase, and therefore, the Project's effect on VMT would be less than significant.

Table 4.13-3. Roadway VMT within Town of Apple Valley

Metric	2016 Baseline Conditions		2040 Conditions	
	With Project	Without Project	With Project	Without Project
Roadway VMT[1]	855,591	847,823	1,364,429	1,362,981
Service Population[2]	92,347	91,113	128,040	126,806
VMT per Service Population[3]	9.3	9.3	10.7	10.7
Project Impact	No		No	

Sources: Appendix J; San Bernardino Traffic Analysis Model (SBTAM) for the 2016 and 2040 land use summaries; General Technologies and Solutions (GTS) for the analysis.

Notes:

1 Roadway VMT = sum of all vehicle miles traveled on all streets within the town limits of Apple Valley

2 Service population = sum of residents and employees in Apple Valley in the scenario being analyzed.

3 VMT per Service Population = VMT/Service Population

Conclusion

The VMT analysis conducted to identify potentially significant Project-generated VMT impacts under CEQA concludes that the proposed Project generates a VMT/Service population less than the VMT/Service population representing buildout of Apple Valley's General Plan and, therefore, does not cause a significant impact based on the Town's adopted significance thresholds for Project-generated VMT.

Another VMT analysis was conducted to identify potentially significant impacts of the Project's "effects on town-wide VMT" under CEQA concludes that the VMT/Service population metric for the baseline and horizon year scenarios "with the project" do not increase the metric over the "without project" scenarios. Therefore, the proposed Project does not cause a significant impact based on the Town's adopted significance thresholds for the Project's effect on town-wide VMT.

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)?

Less-than-Significant Impact. All roadway improvements required as part of the Project, whether located on or off site, would be designed and constructed in accordance with all applicable local, state, and federal roadway standards and practices. The proposed site access and frontage improvements are summarized below.

Site Access

Access to the two buildings on the site will be from driveways on Norco Street, Falchion Road, and Outer Highway 15 South. The proposed circulation and access plan includes four gated driveways on Norco Street (see Appendix

J, Exhibit ES-1 driveways A though D). Prior to the gates, access to parking lots is permitted for employees and visitors, but access to the loading docks and container storage areas to each side of both buildings is gated. The driveways on Norco Street are spaced about 520 feet (A to B), 280 feet (B to C), and 530 feet (C to D).

Access to the site from Falchion Road is via four driveways (see Appendix J, Exhibit ES-1 driveways E though H) providing unrestricted access to the parking lots on the south side of each building, and gated access to the loading docks and container storage areas. The Falchion Road intersections are spaced about 620 feet (E to F), 830 feet (F to G), and 385 feet (G to H).

One driveway (see Appendix J, Exhibit ES-1 driveway I) is provided on Outer Highway 15 South about 600 feet north of the Outer Highway 15 South / Falchion Road intersection for access to Building 1.

Project driveways will be reviewed for required traffic control and the gated primary truck entrances will be analyzed for traffic control, lane geometries, and queuing behind the access gates based on industry standard gate processing times, as described in Section G below.

As the Project continues through design review, detailed roadway improvements will continue to be developed in coordination with the Town. These improvements would be overseen by Town and their qualified traffic engineers. This approach would ensure compliance with all applicable roadway design requirements. As such, no hazardous design features would be part of the Project's roadway improvements or site access.

Frontage Improvements

The required Project-specific frontage and access improvements are described in detail Appendix J and summarized below.

- Falchion Road
  - Construct Falchion Road[1] from Outer Highway 15 to Apple Valley Road.
  - Construct and improve the Project's frontage with Falchion Rd from Outer Highway 15 to Apple Valley Road.
  - The Project will be required to dedicate land and construct the 52-foot half-width of a Major Road section including the Project's driveways. Until the southern half of Falchion Road is constructed by others the two travel lanes constructed with the half-width section can provide for two-way traffic.
- Norco Street
  - Construct Norco Street[2] from Outer Highway 15 to Apple Valley Road
  - Construct and improve the Project's frontage with Norco St between Outer Highway 15 to Apple Valley Road
  - The Project will be required to construct the 52-foot half-width of a Secondary Road section including the proposed driveways accessing the Project from Norco Street
- Outer Hwy 15
  - Construct and improve the Project's frontage with Outer Highway 15 between Falchion Rd and Norco Street
  - The Project will be required to dedicate land and construct the 44-foot half-width of a Secondary Road section including the Project's driveways

1 Falchion Road is designated as a Major Road in the General Plan with a 104-foot right-of-way to accommodate a four-lane traveled way with a 12-foot median, shoulder, bike lanes, or street parking, and a 12-foot parkway/sidewalk on both sides of the street.

2 Norco Street is designated as a Major Road in the General Plan with a 104-foot right-of-way to accommodate a four-lane traveled way with a 12-foot median, shoulder, bike lanes, or street parking, and a 12-foot parkway/sidewalk on both sides of the street.

- Apple Valley Road
  - Construct and improve the Project's frontage with Apple Valley Road
  - The Project will be required to dedicate land and construct the 64-foot half-width of Apple Valley Road's Major Divided Arterial designation
  - The Project should construct the section of Apple Valley Road fronting Project-owned property between Falchion Road and Norco Street as a minimum two-way two-lane (one in each direction) roadway to close this gap

Furthermore, while congestion-based level of service effects are no longer used to evaluate a Project's transportation impact under CEQA, a LOS analysis was prepared as part of the Project's traffic impact analyses (Appendix J) as required by the Town's Development Title standards. The LOS analysis was conducted for 14 intersections in the Project study area, including the Project driveways. Based on the findings of the analysis, Project-specific roadway and intersection improvements were recommended to improve the LOS at deficient intersections. While the analysis focuses on operational deficiencies (e.g., LOS), the recommended improvements, such as providing deceleration lanes, installing traffic signals, etc. will also improve safety, access and circulation at the study intersections and roadways for both Project-related and future traffic conditions. The recommended frontage improvements identified above (detailed in Appendix J), in the immediate vicinity of the Project will be implemented as part of the Project and will be made a condition of Project approval. The Project would be required to pay a proposed fair share payment towards long-range cumulative improvements that would be shared with other projects in the region.

Threshold D: Would the Project result in inadequate emergency access?

Less-than-Significant. The site plan would be subject to plan review by the Town's Fire Department to ensure proper access for fire and emergency response is provided and required fire suppression features are included. All street improvements will be designed with adequate width, turning radius, and grade to facilitate access by the Town's firefighting apparatus, and to provide alternative emergency ingress and egress. Therefore, the Project's impact due to inadequate emergency access would be less than significant.

Threshold E: Would the Project result in cumulatively considerable transportation impacts?

Less-than-Significant. The proposed Project, in combination with reasonably foreseeable future development, would not result in a significant cumulative impact related to transportation.

As described under the discussion for Threshold (a) and examined in Section 4.6, Greenhouse Gas Emissions, and Section 4.9, Land Use and Planning, the Project is consistent with the following plans addressing the circulation system and would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities under cumulative conditions:

- Regional Transportation Plan- the proposed Project in combination of other cumulative projects would not hinder the County's ability to implement the long-term RTP goals. The Project includes on- and off-site improvements that will optimize the existing roadway system while providing improved vehicular and pedestrian access to the site.
- San Bernardino County CMP- The Project would be consistent with the applicable goals and elements of the CMP. The Project would not impede the ability to maintain or enhance the performance of the multimodal transportation system. The Project would include on- and off-site roadway improvements to

minimize impacts to travel delay and would participate in the Town's Development Impact Fee program, which is coordinated with regional planning efforts in Victor Valley. The CMP System LOS Element and Performance Measures Element also contain LOS standards for CMP designated highways and roadways. There are no designated CMP roadways in the Project study area; therefore, the Project would have no impact on these roadways.

- Town of Apple Valley General Plan– approval of the proposed Project would ensure the proposed uses for the Project site are consistent with the General Plan.

Therefore, cumulative impacts related to a program, plan, ordinance, or policy addressing the circulation system would be less than significant. Impacts related to conflicts with transit, bicycle or pedestrian transportation would be identical to the impacts described in the Project-specific impacts section. The Project would not make a cumulatively considerable contribution to transit, bicycle or pedestrian access; therefore, all impacts would be less than significant.

As presented in Table 4.13-2 in both the baseline and horizon year scenarios (which accounts for future cumulative growth in the area), the VMT/service population metric for the Project is less than the Town of Apple Valley's General Plan buildout significance threshold. Therefore, the Project would have a less than significant cumulative impact on VMT. Likewise, the Project's effect on Town-wide VMT, presented in Table 4.13-3, shows that the VMT/Service population metric under the "with project" conditions compared to the metric under the "without project" conditions in both the baseline and horizon year scenarios does not increase and does not satisfy the Town's significance threshold. Thus, the proposed Project would result in less-than-significant cumulative impact on VMT.

As discussed above, the Project's site access would not result in hazardous conditions into or out of the Project sites. As with the proposed Project, driveways and/or circulation modifications proposed for other projects in the surrounding area would comply with applicable federal, state, regional, and/or local requirements. Therefore, the Project would not contribute to cumulative impacts with respect to hazardous design features.

The Project would not result in inadequate emergency access, and Project impacts to emergency access would be less than significant. As with the proposed Project, driveways and/or circulation modifications proposed for other projects in the surrounding area would comply with applicable federal, state, regional, and/or local requirements related to emergency access and evacuation plans. Further, because modifications to access are largely confined to a project site, project-specific emergency access impacts would likely not impact other cumulative projects. Therefore, the Project's contributions to cumulative impacts would be less than significant.

4.13.5 Mitigation Measures and Level of Significance After Mitigation

Threshold A: Would the Project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

The Project would result in a less-than-significant impact on a program, plan, ordinance, or policy addressing the circulation system. No mitigation is required.

Threshold B: Would the Project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

The Project would result in a less-than-significant impact on VMT and therefore would not be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). No mitigation is 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 Project would result in a less-than-significant impact related to hazardous design features. No mitigation is required.

Threshold D: Would the Project result in inadequate emergency access?

The Project would result in a less-than-significant impact related to emergency access. No mitigation is required.

Threshold E: Would the Project result in cumulatively considerable impacts related to transportation?

The Project, in combination with past, present, and reasonably foreseeable future development, would result in less-than-significant cumulative impacts related to transportation. No mitigation is required.

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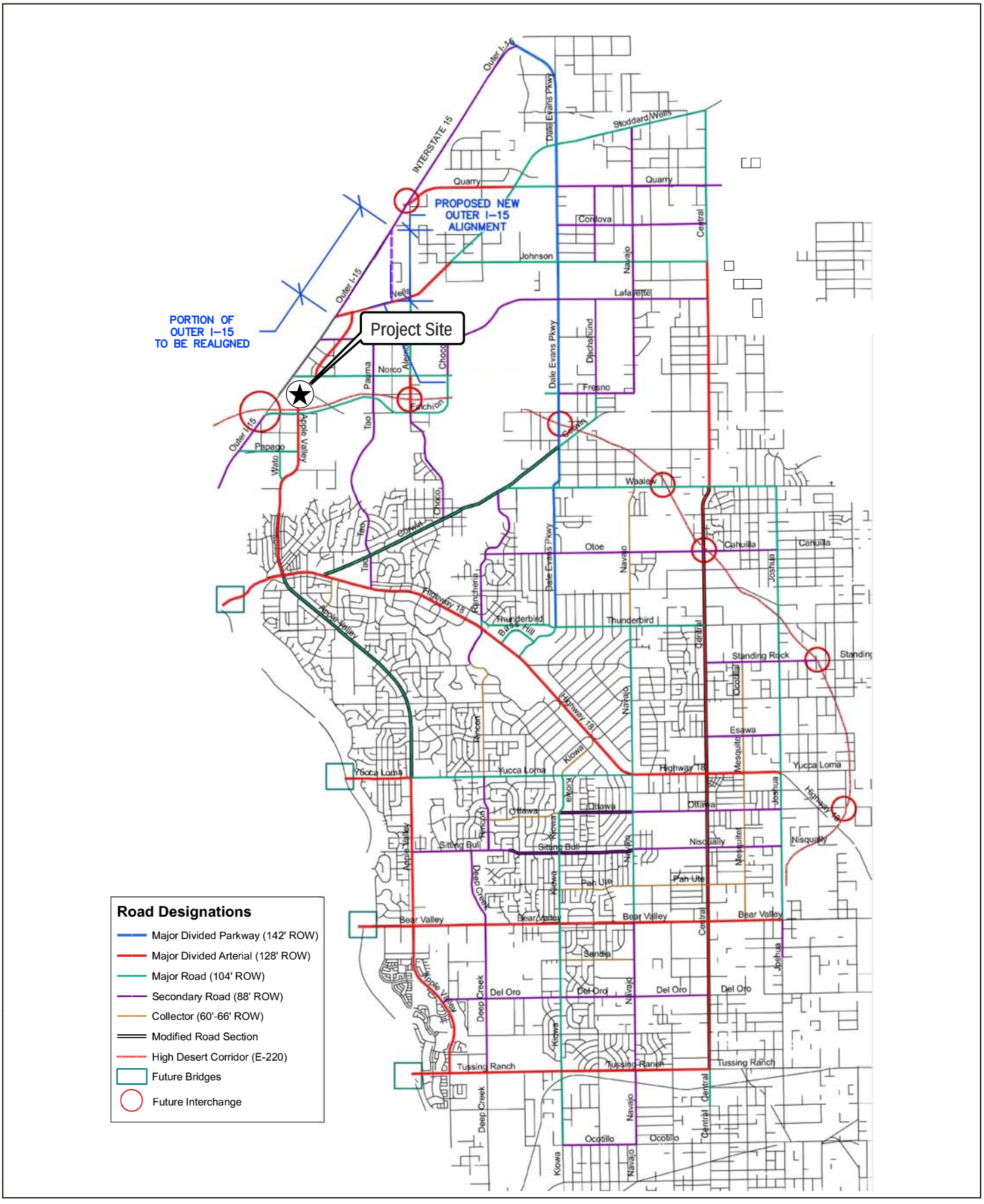

SOURCE: Town of Apple Valley

FIGURE 4.13-1

Town of Apple Valley Circulation Element Map

Inland Empire North Logistics Center Apple Valley Project

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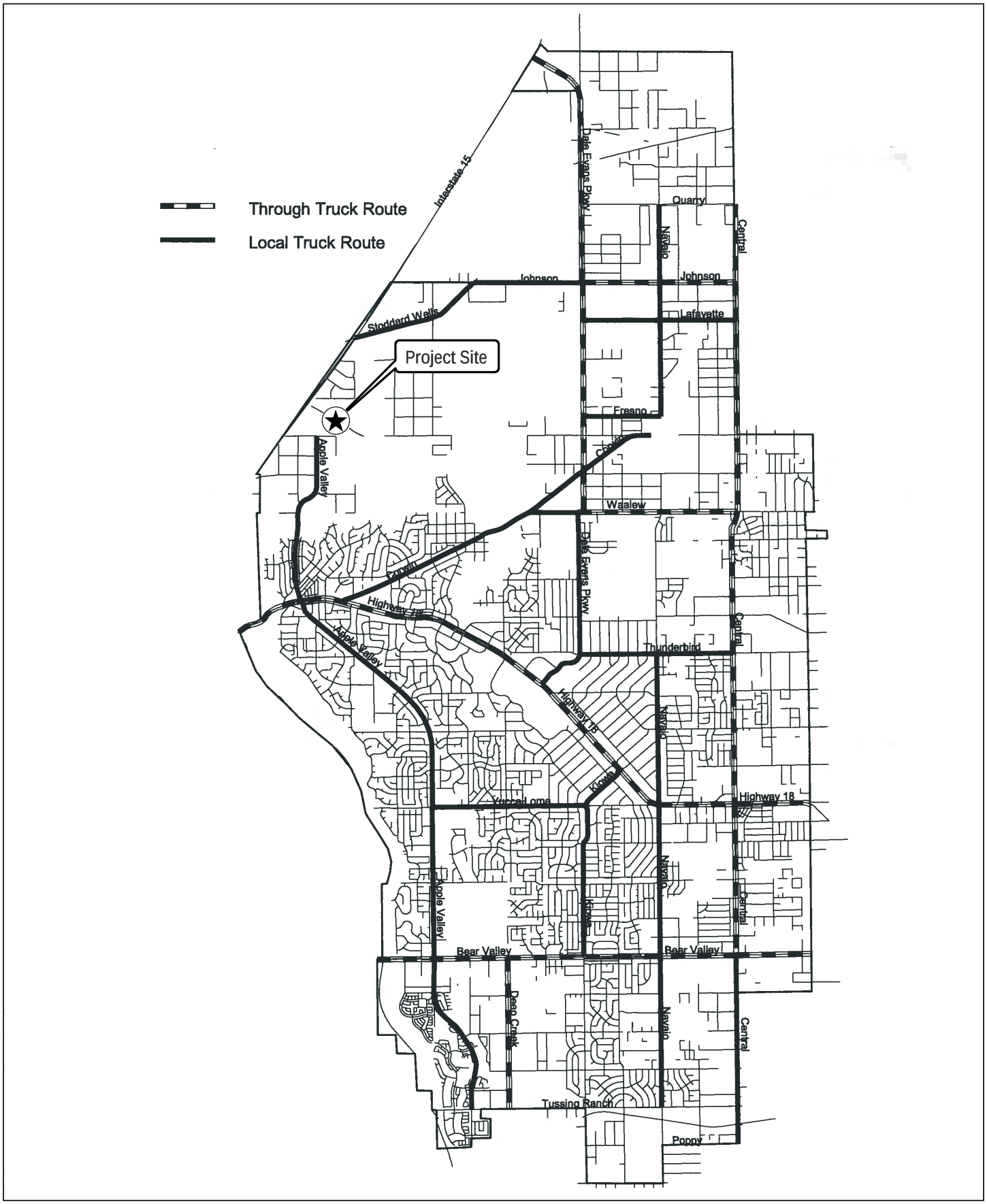

SOURCE: Town of Apple Valley

FIGURE 4.13-2

Town of Apple Valley Truck Routes

Inland Empire North Logistics Center Apple Valley Project

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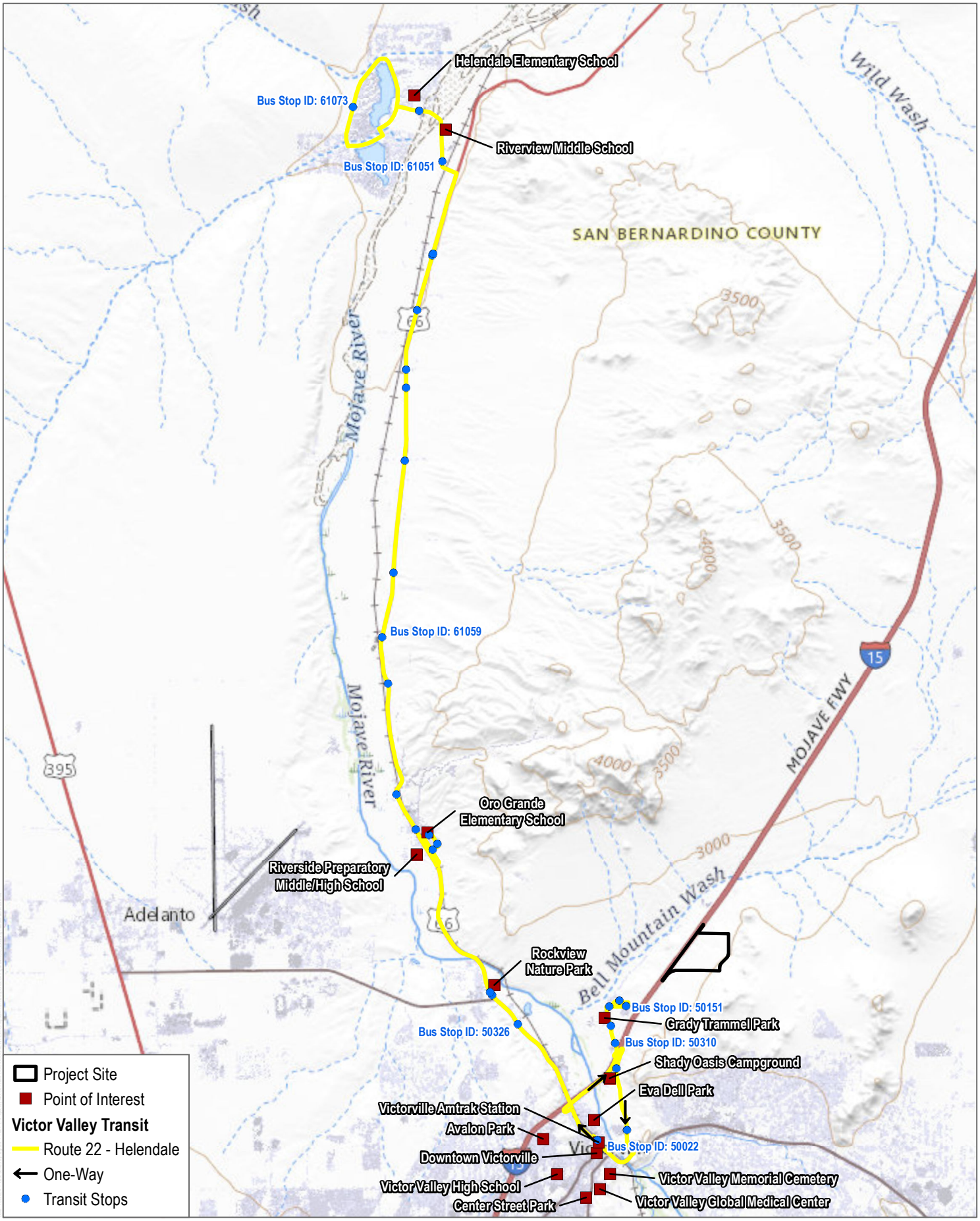

SOURCE: Victor Valley Transit; San Bernardino County; USGS National Basemap

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0 1 2 Miles

FIGURE 4.13-3

Existing Transit Facilities

Inland Empire North Logistics Center Apple Valley Project

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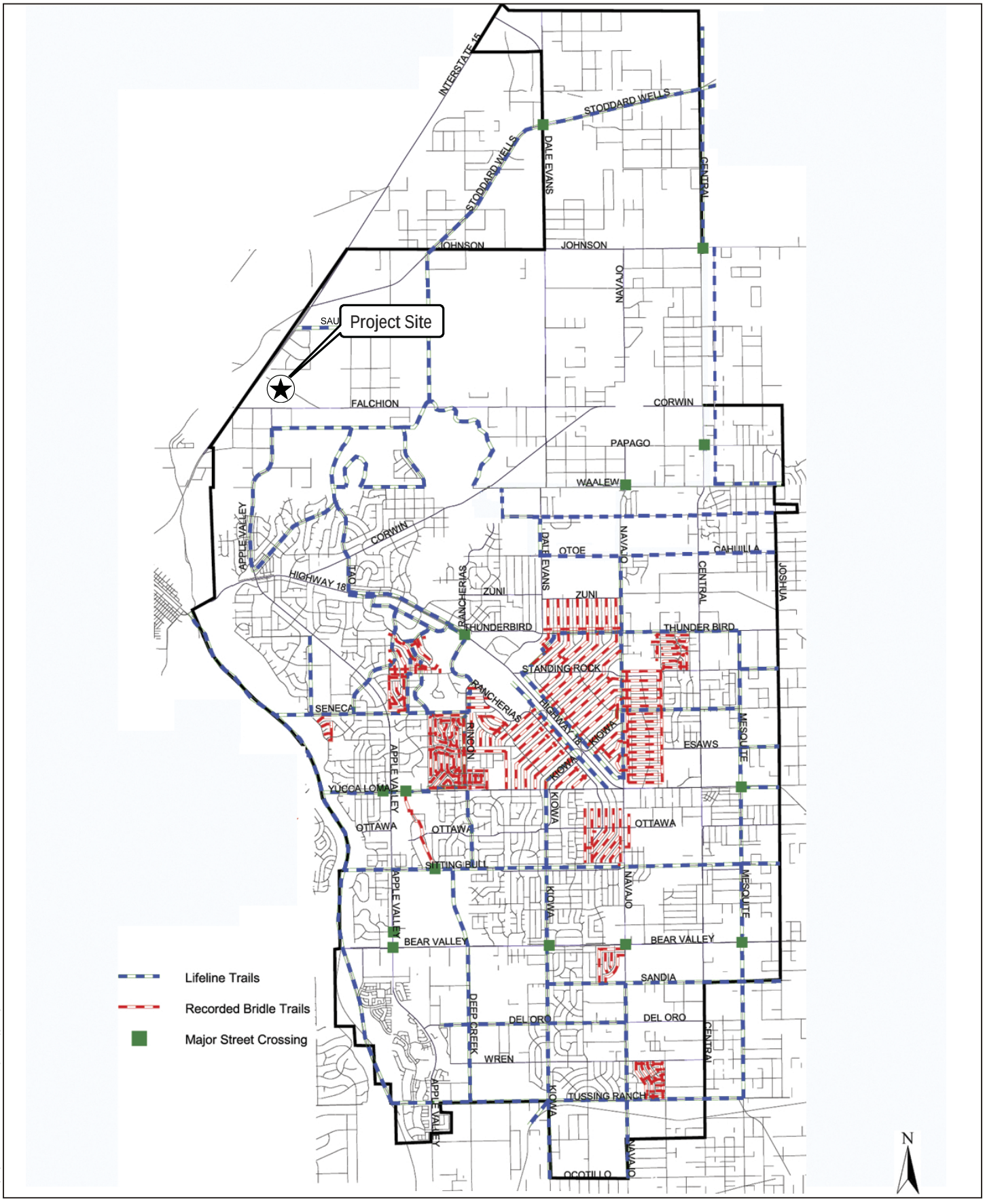

SOURCE: Town of Apple Valley

FIGURE 4.13-4

Multi-use and Equestrian Trails

Inland Empire North Logistics Center Apple Valley Project

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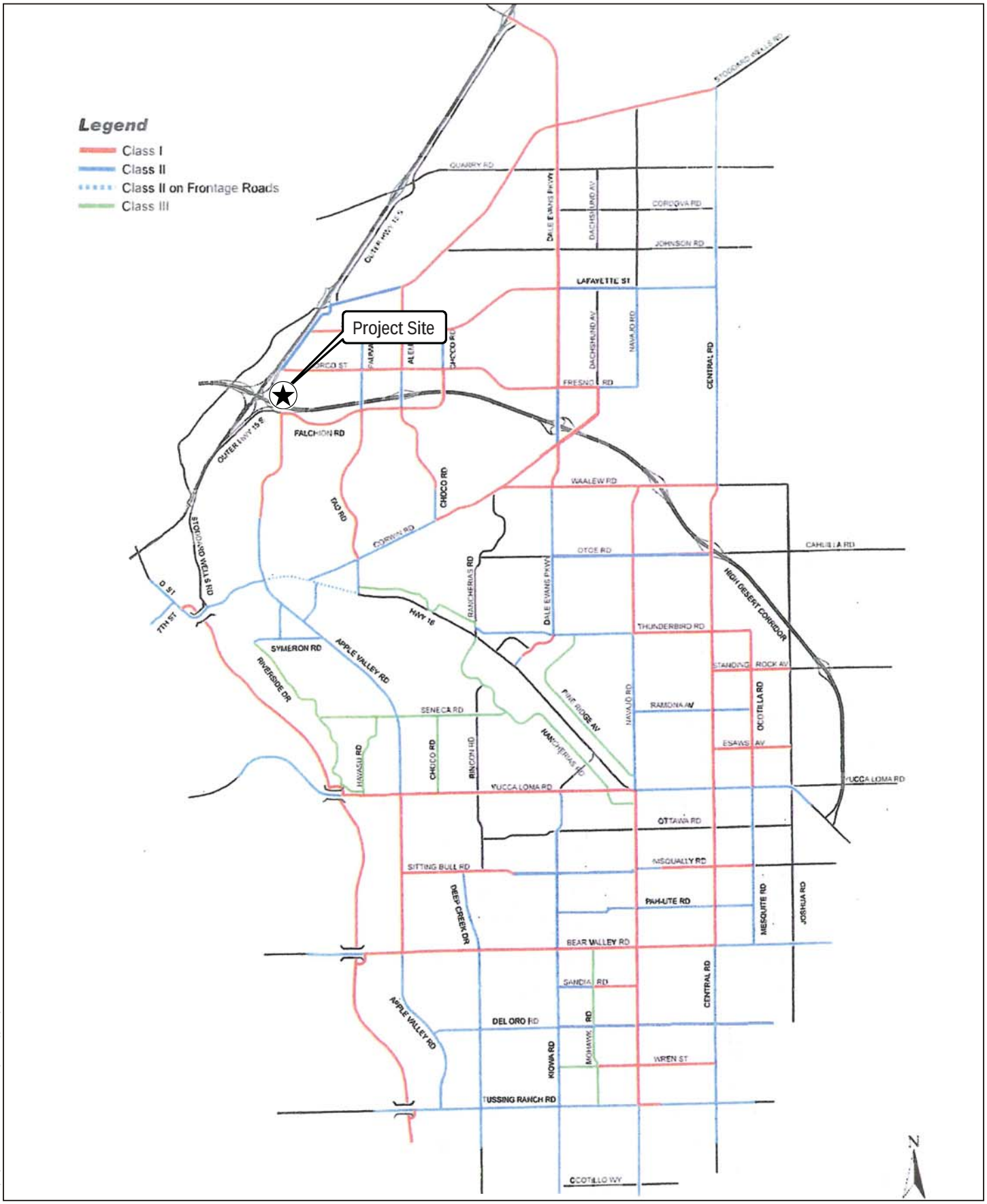

SOURCE: Planning Division and Urban Crossroads, Jan 2009; Town of Apple Valley

FIGURE 4.13-5

Bike Facilities

Inland Empire North Logistics Center Apple Valley Project

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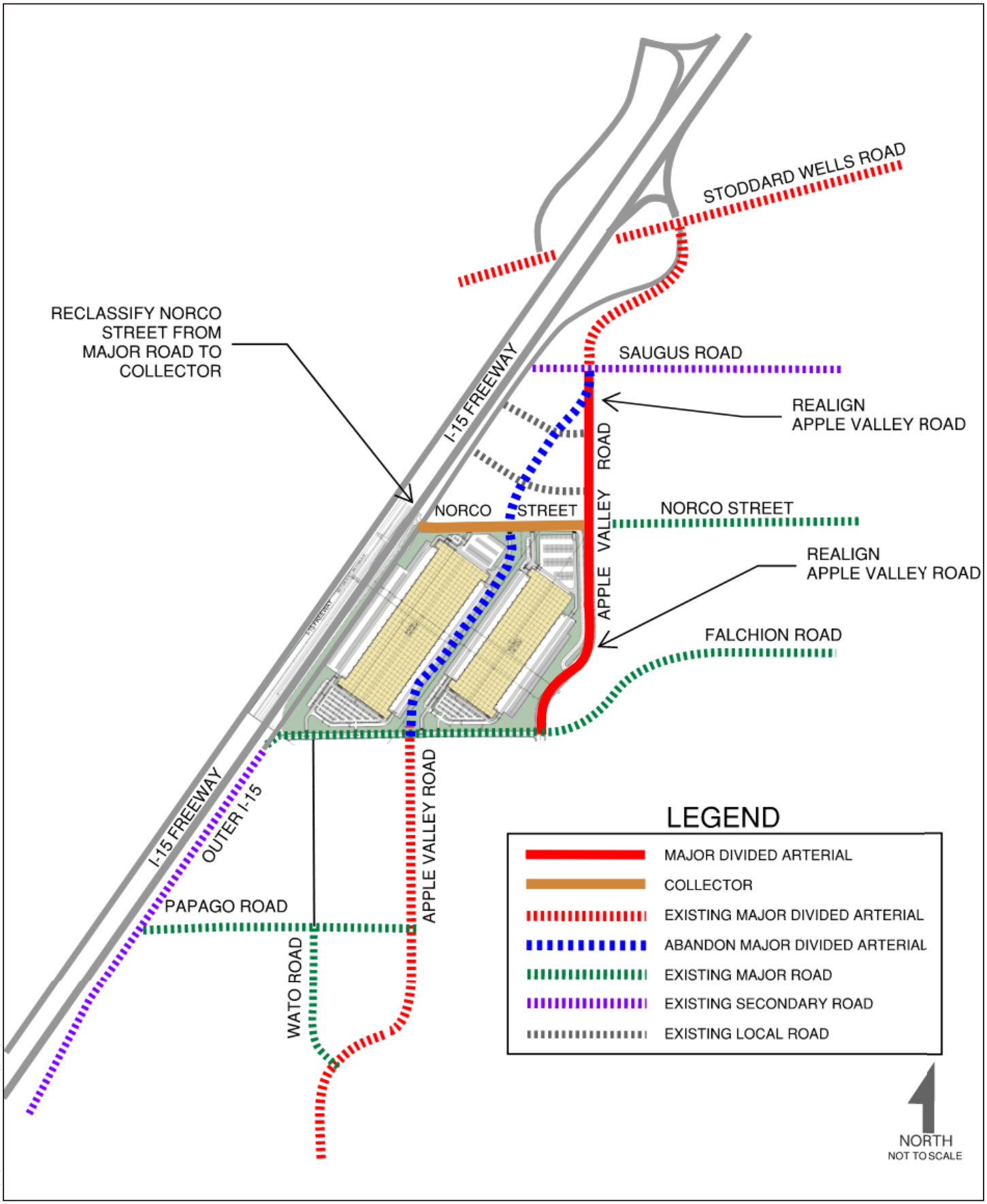

SOURCE: David Evans and Associates Inc., 2024

FIGURE 4.13-6

Proposed General Plan Amendment to Circulation Element

Inland Empire North Logistics Center Apple Valley Project

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4.14 Utilities and Service Systems

This section describes the existing utilities conditions of the Inland Empire North Logistics Center Apple Valley Project (Project) site and vicinity, identifies associated regulatory requirements, and evaluates potential impacts related to the implementation of the Project.

In addition to the documents incorporated by reference (see Section 2.7, Documents Incorporated by Reference, of this Environmental Impact Report [EIR]), the following analysis is based, in part, on the following sources:

- Preliminary Hydrology Report Inland Empire North Logistic Center, prepared by FGFW IV LLC in August 2022 (Appendix H-1)
- Priority Project Water Quality Management Plan for Inland Empire North Logistics Center, prepared by David Evans and Associates in August 2023 (Appendix H-2)
- Water Supply Assessment for the Inland Empire North Logistics Center Apple Valley Project San Bernardino County, California prepared by Dudek in September 2023 (Appendix H-3)

4.14.1 Existing Conditions

Water

Water Supply

Liberty Utilities provides water service to the Town of Apple Valley and unincorporated areas of San Bernardino County. Liberty Utilities' service area encompasses an area of approximately 50 square miles (Liberty Utilities 2021). In 2020, Liberty Utilities obtained 100% of its source water from 18 deep wells located throughout the service area. These wells draw water from the deep Alto sub-unit of the Mojave ground water basin, which is recharged from snowmelt from the San Bernardino Mountains to the south and the Mojave River to the west (Liberty Utilities 2021).

The Mojave Water Agency serves as the entity responsible for managing the use, replenishment, and protection of the groundwater basin. The Upper Mojave River Valley Groundwater Basin is an adjudicated basin and thus has a managed groundwater extraction rate, reducing the potential for over-extraction to occur. The Upper Mojave River Valley Groundwater Basin is classified by the California Department of Water Resources as having a very low priority in regard to prioritizing the completion of a Groundwater Sustainability Plan (GSP) (CDWR 2020) (see Section 4.14.2, Relevant Regulations, Plans, Policies, and Ordinances, for additional detail).

In addition to relying on groundwater, Liberty Utilities purchases imported State Water Project water. However, Liberty Utilities does not directly resell State Water Project water to retail customers. Rather, Liberty Utilities partners with the Mojave Water Agency and other retail water purveyors to use imported State Water Project water to replenish the Upper Mojave Water Basin as part of the Regional Recharge and Recovery Project (also referred to as the "R3" project), which is managed by the Mojave Water Agency. Liberty Utilities can then purchase the rights to recover banked water and distribute it as a potable supply. This practice further assists regional water providers in sustainable management of the basin.

Pursuant to the Urban Water Management Planning Act, Liberty Utilities prepares an Urban Water Management Plan (UWMP) on a 5-year basis to evaluate current and projected water supplies and demands amongst other

water planning issues. Liberty Utilities' most recent UWMP, prepared in 2020, includes plans for provision of water (including drought scenarios) for its service area (Liberty Utilities 2021). The plan uses regional population, land use plans, and projections of future growth as the basis of planning for future water supply and demonstrating compliance with state water conservation goals and policies. Liberty Utilities comprehensively updates its UWMP on a 5-year basis to refine population projections and include all new land use patterns and development.

According to the Liberty Utilities UWMP, Liberty Utilities has the supply needed to meet current and projected water demands through 2045 during normal-, historic single-dry-, and historic multiple-dry-year periods, as shown in Table 4.14-1, which presents the supplies and demands, as estimated for the 2020 report, for the various drought scenarios for the projected planning period of 2025–2045 in 5-year increments. Demands are shown with the effects of assumed urban demand reduction (conservation) measures that would be implemented during drought conditions.

Table 4.14-1. Supply and Demand Comparison (Acre-Feet per Year)

Supply and Demand		2025	2030	2035	2040	2045
Normal Year						
Supply totals		15,846	16,466	17,120	17,810	18,538
Demand totals		15,846	16,466	17,120	17,810	18,538
Difference		0	0	0	0	0
Single-Dry Year						
Supply totals		14,922	15,506	16,122	16,772	17,458
Demand totals		14,922	15,506	16,122	16,772	17,458
Difference		0	0	0	0	0
Multiple Dry Years Supply and Demand Comparison						
First Year	Supply totals	19,285	20,039	20,835	21,675	22,561
	Demand totals	19,285	20,039	20,835	21,675	22,561
	Difference	0	0	0	0	0
Second Year	Supply totals	17,760	18,454	19,188	19,961	20,777
	Demand totals	17,760	18,454	19,188	19,961	20,777
	Difference	0	0	0	0	0
Third Year	Supply totals	18,114	18,823	19,571	20,360	21,192
	Demand totals	18,114	18,823	19,571	20,360	21,192
	Difference	0	0	0	0	0
Fourth Year	Supply totals	17,440	18,122	18,842	19,602	20,403
	Demand totals	17,440	18,122	18,842	19,602	20,403
	Difference	0	0	0	0	0
Fifth Year	Supply totals	14,296	14,856	15,446	16,069	16,726
	Demand totals	14,296	14,856	15,446	16,069	16,726
	Difference	0	0	0	0	0

Source: Liberty Utilities 2021.

Existing Water Use

The Project site consists of primarily vacant, undeveloped land as well as disturbed land, and unpaved roads. Approximately 20 acres of the project site has historically been used for stockpiling of soil and similar type materials from off-site mining activities; a storage structure associated with the stockpiling activities is located on the Project site. As such, there is no existing water demand on site.

Water Infrastructure

Liberty Utilities' existing water distribution system includes approximately 475 miles of underground pipelines. The Project site is proposed to be annexed into Liberty Utilities service area to supply water for all phases of the Project. Potable water would be conveyed to the Project site via pipelines that would be extended from existing 8-inch pipelines located at Ohna Road and Saugus Road. A new 16-inch main would be installed along Apple Valley Road and new 8-inch pipelines would be installed along Falchion Road and Norco Road with points of connection to the buildings. Backflow valves and meters would be installed at the points of connection. Fire water would be provided to the Project site via the 8-inch mains along Norco Road and Falchion Road.

Wastewater

Sewer Infrastructure

The Town's Department of Public Works Wastewater Division owns, operates, and maintains a wastewater collection system, including approximately 140 miles of collector sewer, trunk lines and inceptors, as well as nine sewer lift pump stations. The Town is a member of the joint power agency, Victor Valley Wastewater Reclamation Authority (VVWRA). VWRA operates a regional interceptor sewer system and wastewater reclamation plants. The Town's sewer system conveys wastewater to the Regional Wastewater Treatment Plant (RWWTP) operated by VVWRA in Victorville. The plant currently treats approximately 10.7 million gallons per day (mgd) and has a design capacity of 18 mgd (VVWRA 2023a). The Apple Valley Subregional Water Recycling facility located at Brewster Park was completed in 2018. It can produce 1 mgd of recycled water, which is used to irrigate Brewster Park and the Civic Center Park. The facility only treats wastewater and returns solid waste to the sewer line where it continues to the RWWTP in Victorville for treatment (VVWRA 2023b).

The Project would connect to existing sewer infrastructure located at Stoddard Wells Road, west of Interstate 15.

Existing Wastewater Generation

The approximately 178-acre Project site consists of predominantly vacant and undeveloped land, as well as disturbed land and unpaved roads. Approximately 20 acres at the northeast portion of the Project site are currently used for stockpiling of soil and similar type materials from off-site mining activities; a metal storage structure associated with the stockpiling activities is located within the stockpiling area. Stockpiling activities would cease upon construction of the Project, and the storage structure would be removed from the site. As such, there is no wastewater currently generated on site.

Stormwater Drainage

The Project site consists of approximately 178 acres of irregularly shaped vacant and undeveloped land, as well as disturbed land, and unpaved roads. Approximately 20 acres of the project site has historically been used for stockpiling of soil and similar type materials from off-site mining activities; a structure associated with the

stockpiling activities is located on the Project site. The natural topography of the site results in drainage to the eastern and western portion of each proposed building. Under existing conditions, there are no current stormwater collection facilities on the Project site. Within the greater Project area, stormwater facilities are managed by the San Bernardino County Flood Control District. Locally, the Town's Public Works Department manages facilities through its Master Drainage Plan. While there are no stormwater drainage facilities located on the Project site, stormwater flows as sheet flow to the eastern and western portion of each building where it naturally evaporates and/or infiltrates into the soil.

Under Project conditions, the Project's stormwater system involves capturing, treating, and infiltrating stormwater on site; conveying flows that exceed the capacity of the stormwater system off site onto and across the I-15 Freeway; and collecting and rerouting run-on flows on site towards the four proposed underground infiltration facilities located on the northern and southern parking areas of each building.

Solid Waste

The collection, transport, and disposal of solid waste and recyclables from business use and residential use in the Town are provided by Burrtec's AVCO Disposal (Burrtec). After waste is collected, it is delivered to the Victor Valley Material Recovery Facility, located at 17000 Abbey Lane in Victorville, approximately 1.3 miles southwest of the Project site. Waste is collected and hauled to the Victorville Sanitary Landfill. Details on this landfill are provided below (CalRecycle 2023a):

> The Victorville Sanitary Landfill is located at 18600 Stoddard Wells Road in Victorville, approximately 0.5 mile to the north of the Project site. This landfill is owned and operated by the County of San Bernardino Solid Waste Management Division. The Victorville Landfill has a maximum permitted daily throughput of 3,000 tons, has a maximum capacity of 93,400,000 cubic yards, and has a remaining capacity of 79,400,000 cubic yards. As of 2023, this landfill was expected to remain open until 2047.

Construction waste is typically disposed of at inert landfills, which are facilities that accept materials such as soil, concrete, asphalt, and other construction debris. San Bernardino County has two landfills that accept inert waste, the Victorville Sanitary Landfill and the Chino Valley Rock Landfill (County of San Bernardino 2019). The Chino Valley Rock Landfill is located at 13434 Ontario Avenue in Ontario, approximately 43 miles southwest of the Project site. The Chino Valley Rock Landfill has a maximum daily throughput of 1,500 tons and a maximum capacity of 4,600,500 tons per year (CalRecycle 2023b). However, as waste from the Town is already disposed of at the Victorville Sanitary Landfill, it is unlikely that Chino Valley Rock Landfill would be used. In addition, the Town has a franchise agreement with Burrtec, which designates them as the Town's exclusive waste hauler, including all construction waste.

Existing Solid Waste Generation

The approximately 178-acre Project site consists of predominantly vacant and undeveloped land, as well as disturbed land and unpaved roads. Approximately 20 acres at the northeast portion of the Project site are currently used for stockpiling of soil and similar type materials from off-site mining activities; a metal storage structure associated with the stockpiling activities is located within the stockpiling area. Stockpiling activities would cease upon construction of the Project, and the storage structure would be removed from the site. As such, only a small amount of solid waste is currently generated on site. Solid waste currently generated on site is limited to employee refuse, which is routinely removed from the project site.

Electricity

Electrical power for the Town is provided by Southern California Edison (SCE). SCE, a subsidiary of Edison International, serves approximately 180 cities in 11 counties across central and Southern California. According to the California Energy Commission (CEC), approximately 106,552 gigawatt-hours of electricity were used in SCE's service area in 2022 (CEC 2023). Demand forecasts anticipate that approximately 111,670 gigawatt watt-hours of electricity will be used in SCE's service area in 2025 under a high demand forecast (CEC 2023). SCE receives electric power from a variety of sources.

California's electricity industry is an organization of traditional utilities, private generating companies, and state agencies, each with a variety of roles and responsibilities to ensure that electrical power is provided to consumers. In order to ensure projected supply meets demand, SCE tracks planned development and coordinates with the California Independent System Operator (ISO). The California ISO is a nonprofit public benefit corporation and is the impartial operator of the state's wholesale power grid and is charged with maintaining grid reliability, and to direct uninterrupted electrical energy supplies to California's homes and communities. While utilities (such as SCE) still own transmission assets, the ISO routes electrical power along these assets, maximizing the use of the transmission system and its power generation resources. The ISO matches buyers and sellers of electricity to ensure that enough power is available to meet demand. To these ends, every 5 minutes the ISO forecasts electrical demands, accounts for operating reserves, and assigns the lowest cost power plant unit to meet demands while ensuring adequate system transmission capacities and capabilities.

Part of the ISO's charge is to plan and coordinate grid enhancements to ensure that electrical power is provided to California consumers. To this end, transmission owners (investor - owned utilities such as SCE) file annual transmission expansion/modification plans to accommodate the state's growing electrical needs. The ISO reviews and either approves or denies the proposed additions. In addition, and perhaps most importantly, the ISO works with other areas in the western United States electrical grid to ensure that adequate power supplies are available to the state. In this manner, continuing reliable and affordable electrical power is assured to existing and new consumers throughout the state.

As the Project site is primarily undeveloped, there is not electric infrastructure on site; however, existing overhead lines are present along Falchion Road out Outer Highway 15, directly south of the southern boundary of the site.

Existing Electricity Use

The approximately 178-acre Project site consists of predominantly vacant and undeveloped land, as well as disturbed land and unpaved roads. Approximately 20 acres at the northeast portion of the Project site are currently used for stockpiling of soil and similar type materials from off-site mining activities; a metal storage structure associated with the stockpiling activities is located within the stockpiling area. Stockpiling activities would cease upon construction of the Project, and the storage structure would be removed from the site. As such, there is no electricity demand on the Project site under existing conditions.

Natural Gas

Natural gas service for the Town is provided by the Southwest Gas Holdings, Inc. (Southwest Gas). Southwest Gas provides natural gas service to more than 2 million customers in Arizona, Nevada, and portions of California. Southwest Gas' southern division is a wholesale customer of SoCalGas. According to the Town's Climate Action Plan 2019 Update, Townwide natural gas demand in Apple Valley in 2019 was 15,526,732 therms.

As the approximately 178-acre Project site consists of predominantly vacant and undeveloped land, as well as disturbed land and unpaved roads. Approximately 20 acres at the northeast portion of the Project site are currently used for stockpiling of soil and similar type materials from off-site mining activities; a metal storage structure associated with the stockpiling activities is located within the stockpiling area. There are no underground gas pipelines on site. Stockpiling activities would cease upon construction of the Project, and the storage structure would be removed from the site.

Existing Natural Gas Use

The Project site is primarily undeveloped and vacant. As such, no natural gas is currently used.

Telecommunications

There are a number of telecommunications service providers in the Town including Verizon, Charter, and Charter Spectrum. These are private companies that provide connections to their communication systems on an as-needed basis and maintain existing infrastructure in the vicinity of the Project site. Because the end user of the Project has not yet been identified, it is unknown at this time which provider would provide telecommunications services. However, because existing infrastructure is located within the vicinity of the Project site, it is anticipated that telecommunication lines would be extended onto the Project site from their existing locations.

Existing Telecommunications Use

The approximately 178-acre Project site consists of predominantly vacant and undeveloped land, as well as disturbed land and unpaved roads. Approximately 20 acres at the northeast portion of the Project site are currently used for stockpiling of soil and similar type materials from off-site mining activities; a metal storage structure associated with the stockpiling activities is located within the stockpiling area. Stockpiling activities would cease upon construction of the Project, and the storage structure would be removed from the site. As such, no telecommunications services are currently used.

4.14.2 Relevant Regulations, Plans, Policies, and Ordinances

Federal

National Pollutant Discharge Elimination System Permit Program

The National Pollution Discharge Elimination System (NPDES) permit program was established in the Clean Water Act (CWA) to regulate municipal and industrial discharges to surface waters of the United States. Discharge from any point source is unlawful unless the discharge is in compliance with an NPDES permit. Federal NPDES permit regulations have been established for broad categories of discharges, including point-source municipal waste discharges and nonpoint-source stormwater runoff. NPDES permits generally identify effluent and receiving water limits on allowable concentrations and/or mass emissions of pollutants contained in the discharge; prohibitions on discharges not specifically allowed under the permit; and provisions that describe required actions by the discharger, including industrial pretreatment, pollution prevention, self-monitoring, and other activities.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (Code of Federal Regulations, Title 40, Section 268, Subpart D), contains regulations for municipal solid waste landfills and requires states to implement their own permitting

programs that include federal landfill criteria. The federal regulations address the location, operation, design, and closure of landfills, as well as groundwater monitoring requirements.

State

California Code of Regulations, Titles 14 and 27

Title 14 (Natural Resources, Division 7) and Title 27 (Environmental Protection, Division 2 [Solid Waste]) of the California Code of Regulations govern the handling and disposal of solid waste and operation of landfills, transfer stations, and recycling facilities.

Assembly Bills 939 and 341: Solid Waste Reduction

The California Integrated Waste Management (CIWM) Act of 1989 (AB 939) was enacted as a result of a national crisis in landfill capacity, as well as a broad acceptance of a desired approach to solid waste management of reducing, reusing, and recycling. AB 939 mandated local jurisdictions to meet waste diversion goals of 25% by 1995 and 50% by 2000 and established an integrated framework for program implementation, solid waste planning, and solid waste facility and landfill compliance. AB 939 requires cities and counties to prepare, adopt, and submit to the California Department of Resources Recycling and Recovery (CalRecycle) a source reduction and recycling element to demonstrate how the jurisdiction will meet the diversion goals. Other elements included encouraging resource conservation and considering the effects of waste management operations. The diversion goals and program requirements are implemented through a disposal-based reporting system by local jurisdictions under CIWM Board (CIWMB) regulatory oversight. Since the adoption of AB 939, landfill capacity is no longer considered a statewide crisis. AB 939 has achieved substantial progress in waste diversion, program implementation, solid waste planning, and protection of public health, safety, and the environment from landfills operations and solid waste facilities.

In 2011, AB 341 was passed, making a legislative declaration that it is the policy goal of the state that not less than 75% of solid waste generated be source reduced, recycled, or composted by the year 2020. AB-341 requires that local agencies adopt strategies that will enable 75% diversion of all solid waste by 2020. This bill 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, multifamily apartments with five or more units are also required to form a recycling program.

Senate Bill 1374: Construction and Demolition Waste Reduction

Senate Bill (SB) 1374 requires that annual reports submitted by local jurisdictions to CIWMB include a summary of the progress made in the diversion of construction and demolition waste materials. In addition, SB 1374 requires the CIWMB to adopt a model ordinance suitable for adoption by any local agency that required 50% to 75% diversion of construction and demolition waste materials from landfills. Local jurisdictions are not required to adopt their own construction and demolition ordinances, nor are they required to adopt CIWMB's model by default.

Assembly Bill 1327: California Solid Waste Reuse and Recycling Access Act of 1991

AB 1327, which was established in 1991, required CalRecycle to develop a model ordinance for the use of recyclable materials in development projects. Local agencies were then required to adopt the model ordinance, or

an ordinance of their own, governing adequate areas for collection and loading of recyclable materials in development projects.

Assembly Bill 1826: Mandatory Commercial Organics Recycling

In October 2014, Governor Brown signed AB 1826 Chesbro (Chapter 727, Statutes of 2014), requiring businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste generated per week. (Organic waste is defined as food waste, green waste, landscape, and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste.) This law also requires local jurisdictions across the state to implement an organic waste recycling program to divert organic waste generated by businesses, including multifamily residential dwellings that consist of five or more units. This law phases in the mandatory recycling of commercial organics over time. In particular, the minimum threshold of organic waste generation by businesses decreases over time, which means an increasingly greater proportion of the commercial sector will be required to recycle organic waste.

Senate Bill X7-7

SB X7-7, which became effective on February 3, 2010, is the water conservation component to the Delta legislative package (SB 1, Delta Governance/Delta Plan). The bill implements water use reduction goals established in 2008 to have achieved a 20% statewide reduction in urban per capita water use by the end of 2020. The bill required each urban retail water supplier to develop urban water use targets to help meet the 20% goal by 2020 and an interim 10% goal by 2015. The bill established methods for urban retail water suppliers to determine targets to help achieve water reduction targets. The retail water supplier must select one of the four compliance options. The retail agency may choose to comply with SB X7-7 as an individual or as a region in collaboration with other water suppliers. Under the regional compliance option, the retail water supplier must report the water use target for its individual service area.

Sustainable Groundwater Management Act

On September 16, 2014, Governor Jerry Brown signed into law a three-bill legislative package—AB 1739 (Dickinson), SB 1168 (Pavley), and SB 1319 (Pavley)—collectively known as SGMA. This act requires governments and water agencies of high- and medium-priority basins to halt overdraft and bring groundwater basins into balanced levels of pumping and recharge. Under SGMA, these basins should reach sustainability within 20 years of implementing their sustainability plans. For critically over-drafted basins, sustainability should be achieved by 2040. For the remaining high- and medium-priority basins, 2042 is the deadline. Through SGMA, the CDWR provides ongoing support to local agencies through guidance, financial assistance, and technical assistance. SGMA empowers local agencies to form Groundwater Sustainability Agencies (GSAs) to manage basins sustainably, and requires those GSAs to adopt GSP for crucial groundwater basins in California.

Urban Water Management Plans

Pursuant to the California Urban Water Management Act (California Water Code Sections 10610–10656), urban water purveyors are required to prepare and update a UWMP every 5 years. UWMPs are prepared by California's urban water suppliers to support long-term resource planning and ensure adequate water supplies. Every urban water supplier that either delivers more than 3,000 AFY of water annually or serves more than 3,000 connections are required to assess the reliability of its water sources over a 20-year period under normal-year, dry-year, and

multiple-dry-year scenarios in a UWMP. UWMPs must be updated and submitted to the CDWR every 5 years for review and approval. The Project site is within the area addressed by the Hesperia Water District UWMP.

Senate Bill 610 and Senate Bill 221: Water Supply Assessments

SB 610 and SB 221, amended into state law effective January 1, 2002, improve the linkage between certain land-use decisions made by cities and counties and water supply availability. The statutes require detailed information regarding water availability and reliability with respect to certain developments to be included in the administrative record, to serve as the evidentiary basis for an approval action by the City or County on such projects. Under Water Code Section 10912[a], projects subject to the California Environmental Quality Act (CEQA) requiring a water supply assessment (WSA) include residential development of more than 500 dwelling units; shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space; commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space; hotel, motel or both, having more than 500 rooms; industrial, manufacturing, or processing plants, or industrial parks 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; mixed-use projects that include one or more of the projects specified; or a project that would demand an amount of water equivalent to or greater than the amount required by a 500 dwelling units. A fundamental source document for compliance with SB 610 is the UWMP. The UWMP can be used by the water supplier to meet the standard for SB 610. SB 221 applies to the Subdivision Map Act, conditioning a tentative map on the applicant to verify that the public water supplier has sufficient water available to serve the proposed development.

Pursuant to the requirements of SB 610, a WSA was prepared for the Project and includes a comprehensive assessment of the identified water supply under normal-year, single-dry-year, and multiple-dry-year conditions over a 20-year projection. The WSA also accounts for the projected water demand of the Project plus other existing and planned future uses of the identified water supply (Appendix H-3).

Executive Order B-29-15

In response to the ongoing drought in California, Executive Order (EO) B-29-15 (April 2015) set a goal of achieving a statewide reduction in potable urban water usage of 25% relative to water use in 2013. The term of the EO extended through February 28, 2016, although many of the directives became permanent water-efficiency standards and requirements. The EO includes specific directives that set strict limits on water usage in the state. In response to EO B-29-15, the CDWR modified and adopted a revised version of the Model Water Efficient Landscape Ordinance that, among other changes, significantly increases the requirements for landscape water use efficiency and broadens its applicability to include new development projects with smaller landscape areas.

Sanitary Sewer General Waste Discharge Requirements

On May 2, 2006, the State Water Resources Control Board (SWRCB) adopted a General Waste Discharge Requirement (Order No. 2006-0003) for all publicly owned sanitary sewer collection systems in California with more than 1.0 mile of sewer pipe. The order provides a consistent statewide approach to reducing sanitary sewer overflows by requiring public sewer system operators to take all feasible steps to control the volume of waste discharged into the system in order to prevent sanitary sewer waste from entering the storm sewer system, and to develop a Sewer System Management Plan. The General Waste Discharge Requirement also requires that storm sewer overflows be reported to the SWRCB using an online reporting system.

California Code of Regulations Title 24, Part 11

In 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code, Part 11 of Title 24, commonly referred to as CALGreen, establishes minimum mandatory standards as well as voluntary standards pertaining to the planning and design of sustainable site development, energy efficiency, water conservation, material conservation, and interior air quality. The CALGreen standards took effect in January 2011 and instituted mandatory minimum environmental performance standards for all new construction of residential and non-residential buildings. CALGreen standards are updated periodically. The latest version, CALGreen 2019, became effective on January 1, 2020.

Mandatory CALGreen standards pertaining to water, wastewater, and solid waste include the following (24 CCR Part 11):

- Mandatory reduction in indoor water use through compliance with specified flow rates for plumbing fixtures and fittings.
- Mandatory reduction in outdoor water use through compliance with a local water-efficient landscaping ordinance or the California Department of Water Resources Model Water Efficient Landscape Ordinance.
- Diversion of 65% of construction and demolition waste from landfills.

Local

Water Quality Control Plans (Basin Plans)

The Porter-Cologne Act, Section 13000, directs each Regional Water Quality Control Board (RWQCB) to develop a water quality control plan (Basin Plan) for all areas within its region. The Basin Plan is the basis for each RWQCB's regulatory program. The Project site is located within the purview of the Lahontan RWQCB (Region 6), and the Project must comply with applicable elements of the Basin Plan for Region 6. The Basin Plan gives direction on the beneficial uses of state waters, describes the water quality that must be maintained, and provides programs necessary to achieve the standards established in the Basin Plan. Beneficial uses of waters within the Mojave River Watershed are addressed in the Mojave River Basin Plan Amendment of the Lahontan Basin Plan.

Mojave River Watershed Water Quality Management Plan

The 2013 Phase II Small Municipal Separate Storm Sewer System (MS4) Permit, adopted by the SWRCB, and issued statewide, requires all new development covered by this Order to incorporate Low Impact Development (LID) Best Management Practices (BMPs) to the maximum extent practicable. In San Bernardino County, the Phase II MS4 Permit is applicable within the Mojave River Watershed. In addition, the order also requires the development of a standard design and post-development BMP guidance for incorporation of site design/LID, source control, treatment control BMP (where feasible and applicable), and hydromodification mitigation measures to the maximum extent practicable to reduce the discharge of pollutants to receiving waters. The purpose of this technical guidance document for the Water Quality Management Plan (WQMP) is to provide direction to project proponents on the regulatory requirements applicable to a private or public development activity, from project conception to completion. This technical guidance document is intended to serve as a living document, which will be updated as needed to remain applicable beyond the current Phase II MS4 Permit term. Any non-substantive updates to the technical guiding document and WQMP template will be provided in the annual report. Future substantive updates shall be submitted to the Lahontan RWQCB for review and approval, prior to implementation.

Town of Apple Valley General Plan

The Energy and Mineral Resources Element of the Town of Apple Valley contains the following goals and policies pertaining to energy for the proposed Project.

Energy and Mineral Resources Element

Goal**:** Assure the long-term availability and affordability of energy and mineral resources through conservative consumption, efficient use and environmentally sensitive management practices.

Policy 1A**:** The community and all economic sectors shall be urged to conserve energy, with particular focus on the inclusion of energy saving measures in transport systems, and in the planning and construction of urban uses.

Policy 1B: Promote building design and construction that integrates alternative energy systems, including but not limited to solar, thermal, photovoltaics and other clean energy systems.

Policy 1C: Proactively support state and federal legislation and regulations and long-term strategies that assure affordable and reliable production and delivery of electrical power to the community. The Town will encourage and facilitate the exploitation of local renewable resources by supporting public and private initiatives to develop and operate alternative systems of electricity generation, using wind, solar and other renewable energies.

Policy 1D: The Town will encourage and facilitate the exploitation of local renewable resources by supporting public and private initiatives to develop and operate alternative systems of electricity generation, using wind, solar and other renewable energies.

Water, Wastewater and Utilities Element

Goal**:** The provision of a range of water, wastewater and other utility services and facilities that is comprehensive and adequate to meets the Town's near and long-term needs in a cost-effective manner.

Policy 1.A: The Town shall coordinate with the various domestic water service providers to ensure that local and regional domestic water resources and facilities are protected from over-exploitation and contamination.

Policy 1.B: The Town shall continue to require sewer connection where feasible at the time that a lot is developed, or when service becomes available.

Policy 1.D: The Town shall confer and coordinate with service and utility providers to ensure the timely expansion of facilities so as to minimize or avoid environmental impacts and disturbance of existing improvements. Planning efforts shall include design and siting of support and distribution facilities.

Policy 1.E: The Town shall encourage and support the integration of energy conservation technologies throughout the community.

Policy 1.F: The Town and its solid waste disposal service provider shall continue to consult and coordinate to maintain and surpass, where possible, the provisions of AB 939 by means of

expanded recycling programs to divert resources from the waste stream that can be returned to productive us.

Policy 1.G: To the greatest extent feasible, the Town shall encourage commercial and industrial establishments to minimize the amount of packaging and potential waste associated with product manufacturing and sales.

Policy 1.H: Power and other transmission towers, cellular communication towers and other major utility facilities shall be designed and sited so that they result in minimal impacts to viewsheds and minimally pose environmental hazards.

Policy 1.I: Planning, development and installation of state-of-the-art telecommunications and other broadband communications systems shall continue to be encouraged as essential infrastructure in the Town's Sphere of Influence.

4.14.3 Thresholds of Significance

The significance criteria used to evaluate the Project impacts to utilities and service systems are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to utilities and service systems would occur if the Project would:

A. Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation 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 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.
E. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.
F. Result in cumulatively considerable impacts relating to utilities and service systems.

4.14.4 Impacts Analysis

Threshold A: Would the Project require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Less-than-Significant Impact. As discussed in further detail below, the Project would result in less-than-significant impacts with regard to the relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.

Water Facilities

The Project would involve the construction of water distribution infrastructure (i.e., pipes, valves, maters, etc.) to provide domestic water, firewater, and irrigation to the Project site. The Project is proposed to annex into the Liberty Utilities service area to receive water.

The annexation into the Liberty service area would involve the construction of water improvements that have the potential to cause environmental effects associated with the buildout of the Project as a whole. The water pipeline improvements have been considered as part of the Project, and their disturbance footprints and construction techniques, as well as their associated impacts, have been accounted for within this Draft EIR. There are no unique impacts associated with the installation of water infrastructure to serve the Project that has not been discussed and accounted for in this document. Therefore, impacts associated with water facilities would be less than significant.

As required by SB 610, a WSA (Appendix H-3) was prepared for the Project. The WSA concluded Liberty Utilities has met 100% of its total demands with supplies from the Mojave Basin area during the last drought between 2011 and 2015. Despite nearly 50% Free Production Allowance reduction in the Mojave Basin and Alto Subbasin, Liberty Utilities has met demand through a series of carry-overs, transfers, and replacement water agreements as well as the implementation of a water shortage contingency plan during severe drought occurrence. Given Liberty Utilities' projected population forecasts, the Project's additional water demand reasonably fits within this projected increase. The UWMP and the Watermaster reports indicate that Liberty Utilities can meet the Project's water demands during normal years, single-dry years, and a 5-consecutive-year drought period over the next 20 years (Liberty Utilities, 2021; Mojave Basin Area Watermaster 2019, 2020, 2021, 2022, 2023).

Water Treatment Facilities

While the Project would result in an incremental increase in demand for water treatment capacity, the Project's water demand would not result in or require new or expanded water treatment facilities beyond those facilities that are already planned as part of Liberty Utilities' 2020 UWMP. A WSA was prepared for the Project to evaluate Liberty Utilities' projected supplies and demands and is included as Appendix H-3. As concluded by the WSA (Appendix H-3), the Project would likely not adversely affect the water supply for Liberty Utilities-Apple Valley for the duration of the Project life and currently potable groundwater quality in their service area meets all regulatory requirements without treatment. As such, implementation of the Project would not result in the need to expand water treatment facilities. Therefore, impacts associated with water treatment facilities would be less than significant.

Wastewater Conveyance Facilities

As previously discussed, the proposed Project would construct new gravity-fed sewer lines along Frontage Road and Norco Street, including a line under the underpass connecting to a main trunk line at Stoddard Wells Road. The construction of the proposed sewer improvements has the potential to cause environmental effects associated with buildout of the Project as a whole. However, the proposed sewer improvements are primarily within existing road right of ways and have been considered as part of the Project, and their disturbance footprints and construction techniques, as well as their associated impacts, have been accounted for within this Draft EIR. There are no unique impacts associated with the installation of sewer infrastructure to serve the Project that have not been discussed and accounted for in this document. Therefore, impacts associated with wastewater conveyance facilities would be less than significant.

Wastewater Treatment Facilities

Upon build-out of the Project, the Project's wastewater would be conveyed to the VVWRA RWWTP, which has a treatment capacity of 18.0 mgd and currently produces an average flow of 10.7 mgd, or approximately 60% of its total capacity. Conservatively using the estimated total water demand for the Project as a basis for the wastewater generation rate, the Project would generate approximately 0.02946 mgd of wastewater. Projected wastewater from the Project would represent approximately 0.34% of the remaining capacity of the treatment facility. Given the remaining capacity of the VVWRA RWWTP, the VVWRA RWWTP should be able to adequately accommodate the Project's contribution of wastewater. As such, no improvements to any of the Town's or VVWRA's facilities would be required to ensure sewer service to the Project site. Therefore, impacts associated with new wastewater treatment facilities would be less than significant.

Stormwater Drainage Facilities

The Project site and a majority of the surrounding area are characterized as a rural, undeveloped, vacant land comprised of pervious surfaces. The approximately 178-acre Project site consists of predominantly vacant and undeveloped land, as well as disturbed land and unpaved roads. Approximately 20 acres at the northeast portion of the Project site are currently used for stockpiling of soil and similar type materials from off-site mining activities; a metal storage structure associated with the stockpiling activities is located within the stockpiling area. Stockpiling activities would cease upon construction of the Project, and the storage structure would be removed from the site. Ground surface cover within the Project site is moderately vegetated with native grasses, shrubs, and trees. The predominance of pervious surfaces currently allows for the percolation of water into the underlying soils. Developed land typically has a much lower rate of percolation, increasing the amount of runoff reaching the storm drain infrastructure. Additionally, stormwater infiltration and detention basins would be utilized as low-impact development (LID) features as part of the Project.

The proposed Project would be required to adhere to local drainage control requirements in accordance with the San Bernardino County Hydrology Manual. The proposed stormwater drainage system includes underground infiltration/and retention basins that would be sized and designed to prevent flooding from a 10-year or 100-year storm while also accommodating the required retention/detention volumes for water quality purposes. The basins would be designed to not exceed the pre-development runoff of at least 5% of the 10-year and at least 90% of the 100-year storm, with only very low flows being discharged off site.

The construction of the proposed storm drainage improvements described above has the potential to cause environmental effects associated with buildout of the Project as a whole. The storm drainage improvements, however, have been considered as part of the Project, and their disturbance footprints and construction techniques, as well as their associated impacts, have been accounted for within this Draft EIR. There are no unique impacts associated with the installation of storm drain improvements to serve the Project that have not been discussed and accounted for in this document. Therefore, impacts associated with stormwater drainage facilities would be less than significant.

Electric Power, Natural Gas, and Telecommunications

Development of the Project would increase demands for electricity and natural gas and would increase requirements for telecommunication technology infrastructure. Upgrades would be required with respect to electric power, natural gas, and telecommunication facilities (i.e., cable television services), based on the change in land use (i.e., greater intensification). These utilities would be part of a dry utility package that would be

installed on site and in the adjacent public roadways to provide service to the Project. Upgrades would be confined to the connections to the Project site and not any off-site centralized facilities. The closest distribution feeder to the Project is Burnetta, a 33kV circuit, which would require the installation of an approximate 3-mile line extension, remote automatic recloser, and a high voltage substation to provide electricity to the site. The connection to these proposed utilities would require limited construction, which would be temporary and limited to trenching, to the depth of the underground lines. Project construction would occur in accordance with all applicable regulatory requirements. These upgrades and connections have been considered as part of the Project, and their disturbance footprints and construction techniques, as well as their associated impacts, have been accounted for within this Draft EIR.

Electricity would be provided to the Project site by SCE. SCE conducts ongoing monitoring and electrical project development to ensures that it can provide adequate electrical service to the Project area. SoCalGas's Projections out to 2035 continue to show available capacity that is well above the existing and future anticipated natural gas demand in the area serviced by SoCalGas (California Gas and Electric Utilities 2021). There are a number of private telecommunications service providers that provide connections to their communication systems on an as-needed basis and maintain existing infrastructure in the vicinity of the Project site. Project demand for electricity, natural gas and telecommunications would be adequately served by existing infrastructure and capacity. Therefore, impacts associated with electric, natural gas, and telecommunication lateral connections would be less than significant.

Threshold B: Would the Project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

Less-than-Significant Impact. Implementation of the Project would result in the construction of two industrial/warehouse buildings and associated improvements areas on an approximately 178-acre site.

Water demand for operation and landscape irrigation of the Project during the anticipated operational life would require an estimated 33 AFY of water. Due to the unknown plans of future tenants, water demand from three different commercial warehouse businesses was used to estimate potential annual water volumes. This estimate was based on average water use per square foot of similar project types within the Liberty Utilities service area. Construction water demand is estimated to be insignificant and would only be temporary. Table 4.14-2 shows the water use for the example warehouse developments provided by Liberty Utilities. Table 4.14-3 shows the three different water use rates applied to the Project footprint. Each scenario has been converted to AFY and then owing to the unknown plans of the future tenants, the highest demand was chosen with an extra buffer given to acknowledge the uncertainty.

Table 4.14-2. Water Usage for Example Warehouses

Business	Size (sq ft)	Gallons per day	Gal/day per sq. foot
Big Lots	1,360,875	673	0.0005
Fresenius Medical Blue	150,000	378	0.003
WalMart Distribution Center	1,080,000	29,920	0.03

Source: Appendix H-3.

Table 4.14-3. Estimated Water Usage for Operation and Landscape Irrigation

Business	Size (sq ft)	Gal/day per sq. foot	Gal/day	(AFY) 2	Average AFY
IENLCAV Project	2,604,446	0.0005	1,302	1.46	33
		0.003	7,813	8.75	
		0.03	78,133	87.52	

Source: Appendix H-3.

As there is currently no existing water demand for the Project site, the net increase in water demand would be equivalent to the Project's estimated water demand of 33 AFY.

The Liberty Utilities' UWMP has planned for growth within its service area over the next 20 years. Liberty Utilities has made an allowance for future demand estimates. Future demand services are based on historical growth rates in the service area. According to Table 7-2 in the Liberty Utilities 2020 UWMP, Liberty Utilities projects a water demand increase of 2,692 AFY from 2025 (15,846 AFY) to 2045 (18,538 AFY) during normal years. The net water demand of the proposed Project would be accounted for within this growth, as the Project is consistent with the underlying Town zoning designations for the Project site via the warehouse overlay.

The UWMP and Project-specific WSA (Appendix H-3) identifies a sufficient and reliable water supply for Liberty Utilities-Apple Valley's service area with a history of meeting demands and acknowledgement of future projects that should increase recycled water supply going forward. As a result, it was determined that there is sufficient water supply for the Project. Therefore, impacts associated with 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 that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Less-than-Significant Impact. As previously discussed, upon build-out of the Project, the Project's wastewater would be conveyed to the Regional Wastewater Reclamation Facility operated by Victor Valley Wastewater Reclamation Authority (VVWRA), which has a treatment capacity of 18.0 mgd and currently produces an average flow of 10.7 mgd, or approximately 60% of its total capacity. Assuming a conservative wastewater generation rate that is equal to the total water demand as estimated in the WSA, the Project would generate approximately 0.02946 mgd of wastewater. Projected wastewater from the Project would represent approximately 0.34% of the remaining capacity of the treatment facility. Given the remaining capacity of the VVWRA RWWTP, the VVWRA RWWTP should be able to adequately accommodate the Project's contribution of wastewater.

In addition, Districts are empowered by the California Health and Safety Code to charge a fee for the privilege of connecting (directly or indirectly) to the Districts' Sewerage System for increasing the strength or quantity of wastewater discharged from connected facilities. This connection fee is a capital facilities fee that is imposed in an amount sufficient to construct an incremental expansion of the wastewater treatment system to accommodate the Project. Therefore, impacts associated with wastewater treatment capacity would be less than significant.

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?

Less-than-Significant Impact. Construction and operation of the Project would result in less-than-significant impacts with regard to the generation of 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.

Short-Term Construction Impacts

Construction of the Project would result in the generation of solid waste such as scrap lumber, concrete, residual wastes, packing materials, plastics, and soils. Per CALGreen, at least 65% of construction and demolition waste must be diverted from landfills. The Town also has construction and demolition debris diversion requirements; however, the CALGreen standards require an equivalent level of diversion (65% diversion). Any hazardous wastes that are generated during construction activities would be managed and disposed of in compliance with all applicable federal, state, and local laws. The remaining 35% of construction material that is not required to be recycled would either be disposed of or voluntarily recycled at a solid waste facility with available capacity. As previously described, there are two existing landfills within San Bernardino County that accept inert waste, the Victorville Sanitary Landfill and the Chino Valley Rock Landfill. However, as waste from the Town is already transported to the Victorville Sanitary Landfill, it is assumed that waste would continue to be transported there. As of 2022, this landfill had an expected remaining capacity of 93,400,000 cubic yards and is expected to remain open until 2047.

The Town has a franchise agreement with Burrtec's AVCO Disposal, which designates them as the Town's exclusive waste hauler. Therefore, it is not an option to self-haul or use other companies to transport construction debris. As such, any construction requiring disposal at an inert waste landfill would be sufficiently accommodated by existing landfills.

For the reasons stated above, Project construction would not 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 (e.g., CALGreen standards). Therefore, short-term construction impacts associated with solid waste disposal would be less than significant.

Long-Term Operational Impacts

Once operational, the Project would produce solid waste on a regular basis, in association with operation and maintenance activities. Anticipated solid waste generation attributable to the Project is shown in Table 4.14-4 and based on estimations that were derived from the air quality modeling that was conducted for the air quality analysis.[1] The solid waste generation rates assume compliance with the California Code of Regulations Title 24, Part 11.

Table 4.14-4. Anticipated Solid Waste Generation

Project Components	Size Metric	Units of Size Metric	Rate	Solid Waste Generation (tons per year)
Unrefrigerated	1,000 square	1932.98	0.94 tons per	1,817

[1] The CalEEEMod accounted for the differences between car trips and truck trips by dividing the site and characterizing it as an unrefridgerated warehouse with rail connections and without rail connections.

Table 4.14-4. Anticipated Solid Waste Generation

Project Components	Size Metric	Units of Size Metric	Rate	Solid Waste Generation (tons per year)
Warehouse – No Rail	feet		1,000 square feet per year	
Unrefrigerated Warehouse –Rail	1,000 square feet	671.28	0.94 tons per 1,000 square feet per year	631
			Total	2,448

Source: Appendix B-1.

As previously discussed, the Town has a franchise agreement with Burrtec, which designates them as the Town's exclusive waste hauler. Burrtec owns and operates the Victor Valley Material Recovery Facility, which recycles municipal waste prior to being transferred to the Victorville Sanitary Landfill. This landfill has a maximum daily permitted throughput of 3,000 tons per day. Assuming solid waste is collected weekly, the net solid waste that is anticipated to be produced by the Project would equate to approximately 0.22% of the available capacity of the Victorville Landfill through its estimated closure date.

Prior to Victorville Sanitary Landfill reaching capacity, additional landfills and strategies would be identified so that disposal needs continue to be met. Landfills within San Bernardino County that exceed the expected lifespan of the Victorville Landfill include the Barstow Sanitary Landfill, which is expected to remain open another 51 years, and the Landers Landfill, which is expected to remain to open another 52 years (CalRecycle 2023c). Additional strategies to accommodate solid waste generated by the Project during its lifespan include the expansion of existing landfills, the construction of new landfills, and the selection of landfills outside of the County. As such, in the event of closure of the Victorville Sanitary Landfill, other landfills in the region would be able to accommodate solid waste from the Project, and regional planning efforts would ensure continued landfill capacity into the foreseeable future.

For the reasons described above, Project operations would not 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.

Therefore, long-term operational impacts associated with solid waste disposal 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?

Less-than-Significant Impact. As described above, solid waste from the Town is brought to the Victor Valley Material Recovery Facility, where waste is sorted for recyclable materials. From there, the remainder of the waste is taken to the Victorville Sanitary Landfill. This facility is regulated under federal, state, and local laws. Additionally, the Town is required to comply with the solid waste reduction and diversion requirements set forth in AB 939, AB 341, AB 132, and AB 1826.

In addition, as previously described, waste diversion and reduction during Project construction and operations would be completed in accordance with CALGreen standards and Town diversion standards. As a result, the Project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste. Therefore, impacts associated with solid waste statutes and regulations would be less than significant.

Threshold F: Would the Project result in cumulatively considerable impacts relating to utilities and service systems?

Less-than-Significant Impact. The Project would not result in cumulatively considerable impacts related to utilities and service systems, as discussed below.

Water Supply

The development of the Project would increase land-use intensities in the area, resulting in increased water usage. The Project would be served by Liberty Utilities-Apple Valley. As such, the development of the Project would increase the amount of water used in Liberty Utilities' service area. Liberty Utilities-Apple Valley 2021 UWMP estimates the annual water demand for 2025 (normal year) is projected to be 15,846 acre-feet. This equates to approximately 4.44 billion gallons a year of water or 12.2 mgd. Liberty Utilities-Apple Valley UWMP states that Liberty Utilities and other water agencies in Southern California have planned provisions for regional water for the growing population, including drought scenarios for its service area. This plan includes a new water demand forecast prepared for the major categories of demand and uses regional population, demographic projections, the dry climate, historical water use to develop these forecasts. As such, the Project would not be expected to result in increased water usage causing the need for new entitlements, resources, and/or treatment facilities that are not already being planned to accommodate regional growth forecasts.

In addition, the Project-specific WSA (Appendix H-3) concluded that water demand and supply for water demand and supply projections for Liberty Utilities-Apple Valley, including the Project, demonstrate that projected supplies exceed demand through the year 2045. These projections consider land use, water development programs and projects, and water conservation.

Lastly, compliance with the CALGreen Building Code would be required for new development. In addition, CALGreen Building Code standards require a mandatory reduction in outdoor water use, in accordance with the CDWR Model Water Efficient Landscape Ordinance. This would ensure that the Project does not result in wasteful or inefficient use of limited water resources and may, in fact, result in an overall decrease in water use per person.

Due to water planning efforts and water conservation standards, impacts would not be cumulatively considerable.

Wastewater

The Project would increase the amount of wastewater that is being generated in the area. However, as previously described, with the upsizing and installation of the sewer improvements, the wastewater treatment facilities in the Project would have the capacity to convey and treat municipal flows. Additionally, Town addresses its long-term planning efforts through the development of a long-term capital improvements program, which serves as a fundamental roadmap of required water, recycled water, and water reclamation facilities needed to support the build out of existing jurisdictional general plans throughout its service area. The Town's Capital Improvements Program relies on its Sewer System Master Plan (Town of Apple Valley 2013) to identify the wastewater and recycled water infrastructure projects that will be necessary to accommodate future build-out in its service area. As cumulative increases in wastewater treatment demand within the service area require facility upgrades, the Town would charge service connection fees. Such fees would ensure that capital improvements are completed sufficiently to accommodate increased wastewater inflows associated with the Project area. As such, due to the Town's long-term planning efforts, the Town would have adequate capacity to serve the Project and cumulative projects' projected demand in addition to the provider's existing commitments using existing entitlements and infrastructure, and impacts would not be cumulatively considerable.

Solid Waste

Development of the Project would increase land-use intensities in the area, resulting in increased solid waste generation in the service area for the Victorville Sanitary Landfill. However, per CALGreen, 65% of construction and debris waste must be diverted from landfills. Once operational, AB 939 mandates that cities divert from landfills, at a minimum, 50% of the total solid waste generated to recycling facilities. In addition, to reduce on-site solid waste generation, the Project would be required to implement waste reduction, diversion, and recycling during both construction and operation. Therefore, through compliance with state and local solid waste diversion requirements, Project impacts would not be cumulatively considerable.

Electric Power, Natural Gas, and Telecommunication

Development of the Project would add to demands for energy and would increase requirements for telecommunication technology infrastructure. As stated in Section 4.14.1, Existing Conditions, the ISO plans and coordinates grid enhancements to ensure that electrical power is provided to California consumers. To this end, transmission owners (investor-owned utilities such as SCE) file annual transmission expansion/modification plans to accommodate the state's growing electrical needs. The ISO reviews and either approves or denies the proposed additions. In addition, and perhaps most importantly, the ISO works with other areas in the western United States electrical grid to ensure that adequate power supplies are available to the state. In this manner, continuing reliable and affordable electrical power is assured to existing and new consumers throughout the state. Typically, upgrades to utility networks fall under the jurisdiction of CPUC and would be subject to environmental review as electrical projects are proposed. As a result of this process, which involves ongoing monitoring and electrical project development, SCE ensures that it can provide adequate electrical service to the Project area.

As part of the Project, natural gas and telecommunication lines would be extended onto the Project site from their existing locations within the vicinity of the Project site, resulting in localized less-than-significant impacts. Given the nature of telecommunication and gas lines (which are not typically subject to the constraints of existing facilities), once telecommunication lines are extended to the Project site, no additional telecommunication or gas line construction is anticipated to be required. Additionally, cumulative development would be subject to review on a case-by-case basis. Should the applicable service provider determine that upgrades or extensions of infrastructure be required, any such upgrades would be included within each project's environmental review. As a result, impacts associated with upgrades of electric, natural gas, and telecommunication facilities would not be cumulatively considerable.

4.14.5 Mitigation Measures and Level of Significance After Mitigation

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 or relocation of which could cause significant environmental effects?

The Project would result in less-than-significant impacts with regard to the relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. No mitigation is required.

Threshold B: Would the Project have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years?

The Project would result in less-than-significant impacts with regard to the availability of sufficient water supplies to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years. No mitigation is required.

Threshold C: Would the Project result in a determination by the wastewater treatment provider, which serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments?

The Project would result in less-than-significant impacts with regard to the capability of the Project's future wastewater treatment provider to serve the Project, in addition to the provider's existing commitments. No mitigation is 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 result in less-than-significant impacts with regard to the generation of 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. No mitigation is required.

Threshold E: Would the Project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

The Project would result in less-than-significant impacts to compliance with federal, state, and local management and reduction statutes and regulations related to solid waste. No mitigation is required.

Threshold F: Would the Project result in cumulatively considerable impacts related to utilities and service systems?

The Project would result in less-than-significant cumulative impacts related to utilities and service systems. No mitigation is required.

4.14.6 References Cited

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5 Effects Found Not To Be Significant

Section 15128 of the California Environmental Quality Act (CEQA) guidelines requires that an environmental impact report (EIR) briefly describe potential environmental effects that were determined not to be significant and therefore were not discussed in detail in the EIR. The environmental issues discussed in the following sections are not considered significant for the Inland Empire North Logistics Center Apple Valley (Project), and the reasons for these less-than-significant impact or no impact determinations are discussed herein.

5.1 Agricultural and Forestry Resources

Conversion of Farmland

According to the California Department of Conservation's California Important Farmland Finder, the Project site contains grazing land (DOC 2016). Grazing land is described as land on which the existing vegetation is suited to the grazing of livestock. Grazing land does not include land designated or previously designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (collectively "Important Farmland"). Therefore, no impacts would occur, and no further analysis is proposed for the Draft EIR.

Agricultural Zoning and Williamson Act Contracts

According to the Town's General Plan EIR, the Project site is not located on or adjacent to any lands under a Williamson Act contract (Town of Apple Valley 2009a). In addition, the Project site and surrounding area are not zoned for agricultural uses, but instead for Regional Commercial uses (Town of Apple Valley 2021). As such, implementation of the Project would not conflict with existing zoning for agricultural use or land under a Williamson Act contract. Therefore, no impacts would occur, and no further analysis is proposed for the Draft EIR.

Conversion of Forest Lands

According to the Town's Zoning Map, the Project site is not located on or adjacent to forestland, timberland, or timberland zoned timberland production (Town of Apple Valley 2021). Therefore, no impacts would occur, and no further analysis is proposed for the Draft EIR.

Loss of Forest Lands

The Project site is not located on or adjacent to forestland. No private timberlands or public lands with forests are located in the Town. Therefore, no impact would occur, and no further analysis is proposed for the Draft EIR.

Other Changes in the Existing Environment Resulting in Conversion of Farmland or Forest Land

The Project site is not located on or adjacent to any parcels identified as Important Farmland or forestland (DOC 2016). In addition, the Project would not involve changes to the existing environment that would result in the indirect conversion of Important Farmland or forestland located away from the Project site. Therefore, no impacts would occur, and no further analysis is proposed for the Draft EIR.

5.2 Geology and Soils

Fault Rupture

The Alquist–Priolo Earthquake Zoning Act (Alquist–Priolo Act) requires the delineation of fault zones along active faults in California. The purpose of the Alquist–Priolo Act is to regulate development on or near active fault traces to reduce hazards associated with fault rupture. The Alquist–Priolo Earthquake Fault Zones are the regulatory zones that include surface traces of active faults. According to the California Department of Conservation, the Project site is not located in an Alquist–Priolo Earthquake Fault Zone (DOC 2023). The nearest fault is the Helendale Fault located approximately 7 miles northeast of the Project site. Thus, the potential for surface rupture is low on the Project site. Therefore, impacts would be less than significant, and this issue will not be evaluated further in the EIR.

Seismic Ground Shaking

Similar to other areas located in seismically active Southern California, the Town is susceptible to strong ground shaking during an earthquake. However, the Project site is not located within an Alquist–Priolo Earthquake Fault Zone, and the site would not be affected by ground shaking more than any other area in this seismic region. Pursuant to Title 8, Buildings and Construction, of the Apple Valley Municipal Code, the Project's geotechnical report will be subject to review and approval by Town staff prior to issuance of a grading permit. Compliance with the recommendations of the geotechnical report is mandated by Section 8.12.010 of the Apple Valley Municipal Code, and compliance is subject to inspection by the Town Building Official. With implementation of the recommendations of the Project's geotechnical report, impacts associated with strong seismic ground shaking would be less than significant, and no further analysis will be conducted in the Draft EIR.

Ground Failure

Soil liquefaction is a seismically induced form of ground failure that has been a major cause of earthquake damage in Southern California. Liquefaction is a process by which water-saturated granular soils transform from a solid to a liquid state because of a sudden shock or strain such as an earthquake. According to the Earthquake Zones of Required Investigation Map, the Project site is not within an area of the Town that has the potential for liquefaction (DOC 2023). Therefore, impacts associated with potential seismic-related ground failure, including liquefaction, would be less than significant, and no further analysis will be conducted in the Draft EIR.

Landslide

According to Exhibit III-H of the Town's General Plan EIR (Town of Apple Valley 2009a), the Project site is not located in an area identified as susceptible to slope instability. The Project site is relatively flat and is not located adjacent to any potentially unstable topographical feature such as a hillside or riverbank. Therefore, no impacts would occur, and no further analysis will be conducted in the Draft EIR.

Soil Erosion and Topsoil Loss

The Project would involve earthwork and other construction activities that would disturb surface soils and temporarily leave exposed soil on the ground's surface. Common causes of soil erosion from construction sites include stormwater, wind, and soil being tracked off site by vehicles. To help curb erosion, Project construction activities must comply with all applicable federal, state, and local regulations for erosion control. The Project would

be required to comply with standard regulations, including South Coast Air Quality Management District Rules 402 and 403, which would reduce construction erosion impacts. Rule 402 requires that dust suppression techniques be implemented to prevent dust and soil erosion from creating a nuisance off site (SCAQMD 1976). Rule 403 requires that fugitive dust be controlled with best available control measures so that it does not remain visible in the atmosphere beyond the property line of the emissions source (SCAQMD 2005).

Since Project construction activities would disturb 1 or more acres, the Project must adhere to the provisions of the National Pollutant Discharge Elimination System Construction General Permit. Construction activities subject to this permit include clearing, grading, and ground disturbances such as stockpiling and excavating. The Construction General Permit requires implementation of a stormwater pollution prevention plan, which would include construction features for the Project (i.e., best management practices) designed to prevent erosion and protect the quality of stormwater runoff. Sediment-control best management practices may include stabilized construction entrances, straw wattles on earthen embankments, sediment filters on existing inlets, or the equivalent. Therefore, impacts would be less than significant, and no further analysis will be conducted in the Draft EIR.

Once developed, the Project site would include buildings, paved surfaces, and other on-site improvements that would stabilize and help retain on-site soils. The remaining portions of the Project site containing pervious surfaces would primarily consist of landscape areas. These landscape areas would include a mix of trees, shrubs, plants, and groundcover that would help retain on-site soils while preventing wind and water erosion from occurring. Therefore, operational impacts related to soil erosion would be less than significant. No further analysis will be conducted in the Draft EIR.

Unstable Geologic Unit or Soil

As discussed previously, the potential for the Project to result in or be affected by landslides and liquefaction is low, and these issues are not anticipated at the Project site. Project activities may occur on geologically unstable soils such as those susceptible to lateral spreading, subsidence, or collapse. Pursuant to Title 8, Buildings and Construction, of the Apple Valley Municipal Code, the Project's geotechnical report will be subject to review and approval by Town staff prior to issuance of a grading permit. Compliance with the recommendations of the geotechnical report is mandated by Section 8.12.010 of the Apple Valley Municipal Code, and compliance is subject to inspection by the Town Building Official. With implementation of the recommendations of the Project's geotechnical report, impacts would be less than significant, and no further analysis will be conducted in the Draft EIR.

Expansive Soil

Expansive soils are characterized by their potential shrink/swell behavior. Shrink/swell is the change in volume (expansion and contraction) that occurs in certain fine-grained clay sediments from the cycle of wetting and drying. Clay minerals are known to expand with changes in moisture content. The higher the percentage of expansive minerals present in near-surface soils, the higher the potential for substantial expansion.

Alluvial fan sediments, composed primarily of granular soils, underlie the low-lying areas of the Town and the expansion potential ranges from very low to moderately low. Additionally, the U.S. Department of Agriculture's Web Soil Survey does not identify the Project site or surrounding area as containing clay soils, which are typically expansive (USDA 2022). Therefore, impacts would be less than significant, and no further analysis will be conducted in the Draft EIR.

Septic Tanks

The Project would connect to the Town's municipal sewer lines. The Project would not require septic tanks or alternative wastewater disposal systems. Therefore, no impacts would occur, and no further analysis will be conducted in the Draft EIR.

5.3 Hazards and Hazardous Materials

Hazardous Materials Use Near Schools

There are no schools within a 3-mile radius of the Project site. As such, the closest school is located well outside of a 0.25-mile radius around the Project site. Project-related trucks would travel on the County and Town of Apple Valley designated truck routes, including Outer I-15 to I-15 at Stoddard Wells Road and on Apple Valley Road to I-15 at Quarry Road. Although schools may be located within 0.25 miles of I-15, utilizing local designated truck routes would ensure Project trucks would avoid passing near schools. Additionally, the Project does not include the routine transport of hazardous materials or waste. Therefore, no impacts would occur, and this issue will not be evaluated further in the Draft EIR.

Hazardous Materials Site Complied Pursuant to Government Code Section 65962.5

The Hazardous Waste and Substances Sites List (Cortese List) is a planning document providing information about the location of hazardous materials release sites. California Government Code Section 65962.5 requires the California Environmental Protection Agency to develop, at least annually, an updated Cortese List. The Department of Toxic Substances Control is responsible for a portion of the information contained in the Cortese List. Other state and local government agencies are required to provide additional hazardous materials release information for the Cortese List (CalEPA 2022). A review of Cortese List online data resources does not identify hazardous materials or waste sites on the Project site or immediately surrounding area (DTSC 2022; SWRCB 2022). Therefore, no impacts would occur, and this issue will not be evaluated further in the Draft EIR.

Airport-Related Safety Hazards or Excessive Noise

The nearest operational public-use airport to the Project site is the Southern California Logistics Airport, which is located approximately 9.5 miles to the west and Apple Valley Airport is located approximately 7.8 miles to the east. According to the Comprehensive Land Use Plan, the Project site is not located within a runway protection zone or safety zone area, which would have potential safety and noise impacts (San Bernardino County 2008). Therefore, impacts would not occur, and this issue will not be evaluated further in the Draft EIR.

Emergency Response and Evacuation Plans

Construction activities that may temporarily restrict vehicular traffic would be required to implement appropriate measures to facilitate the passage of persons and vehicles through/around any required road closures. Typical Town requirements include prior notification of any land or road closures with sufficient signage before and during any closures, flag crews with radio communication when necessary to coordinate traffic flow, etc. The Project developer would be required to comply with these requirements, which would maintain emergency access and allow for evacuation if needed during construction activities.

The Town's General Plan designates Central Road, State Highway 18, and Bear Valley Road as evacuation routes. The Project does not propose any changes to the geometry of these roadways, and moreover, the Project's truck trips would not be directed towards these roads (as they would be directed towards I-15). Thus, it follows that these roadways' ability to serve as emergency evacuation routes would not be compromised. As a result, the Project would not significantly affect emergency response or evacuation activities. Therefore, impacts would be less than significant, and this issue will not be evaluated further in the Draft EIR.

5.4 Hydrology and Water Quality

Flood Hazard, Tsunami, or Seiche Zones

The Project would not be susceptible to flood hazards, tsunami, or seiche. Seiche is generally associated with oscillation of enclosed bodies of water (e.g., reservoirs, lakes) typically caused by ground shaking associated with a seismic event; however, the Project site is not located near an enclosed body of water. Flooding from tsunami conditions is not expected since the Project site is located approximately 100 miles from the Pacific Ocean.

In addition, the Federal Emergency Management Agency Flood Map Service Center identifies the Project site as Zone D, which is classified as an area of undetermined flood hazard (FEMA 2021). As such, the Project would not risk release of pollutants due to inundation. Therefore, impacts associated with seiche, tsunami, or flooding would be less than significant, and this issue will not be evaluated further in the Draft EIR.

5.5 Land Use and Planning

Division of an Existing Community

The physical division of an established community typically refers to the construction of a linear feature (e.g., a major highway or railroad tracks) or removal of a means of access (e.g., a local road or bridge) that would impair mobility within an existing community or between a community and outlying area.

Under the existing condition, the Project site is predominately vacant land, with an approximately 20-acre portion used for stockpiling from off-site mining activities and is not used as a connection between established communities. Instead, connectivity within the area surrounding the Project site is facilitated via local roadways. As such, the Project would not impede movement within the Project area, within an established community, or from one established community to another. Therefore, no impacts would occur, and this issue will not be evaluated further in the Draft EIR.

5.6 Population and Housing

Inducement of Population Growth

The Project would require a temporary construction workforce and a permanent operational workforce, both of which could potentially induce population growth in the Project area. The temporary workforce would be needed to construct the warehouse buildings and associated improvements. The number of construction workers needed during any given period would largely depend on the specific stage of construction but would likely range from a dozen to several dozen workers on a daily basis. These short-term positions are anticipated to be filled primarily by

construction workers who reside in the Project site's vicinity; therefore, construction of the Project would not generate a permanent increase in population within the Project area.

Because the future tenants are not known yet, the number of jobs that the Project would generate cannot be precisely determined. Thus, for purposes of analyses, employment estimates were calculated using average employment density factors reported by Southern California Association of Governments (SCAG). SCAG reports that for every 1,195 square feet of warehouse space in San Bernardino County, the average numbers of jobs supported is one employee (SCAG 2001). The Project would include 2,604,446 square feet of industrial/warehouses space, excluding associated improvements. As such, the estimated number of employees required for operation would be approximately 2,179.

According to the 2021 U.S. Census, the population of the Town was approximately 76,224 residents. According to the Town's General Plan, upon build-out, the Town could support a population of 185,858 residents (Town of Apple Valley 2009b). As such, the Project-related increase of approximately 2,179 employees would represent a nominal percentage of the Town's projected future population upon General Plan build-out.[1]

In addition, data provided by the California Employment Development Department in February 2022 found that the unemployment rate for San Bernardino County is at 5%, which is similar to the state average (5.4%) (EDD 2022). As such, the Project's temporary and permanent employment requirements could likely be met by the Town's existing labor force without people needing to relocate into the Project region, and the Project would not stimulate population growth or a population concentration above what is assumed in local and regional land use plans. Therefore, impacts would be less than significant, and no further analysis will be conducted in the Draft EIR.

Displacement of Existing Housing and People

The Project site is currently predominately vacant with an approximately 20-acre portion used for stockpiling for off-site mining activities and contains no housing or other residential uses. Given that no residential uses are located on site, it follows that the site does not support a residential population. Therefore, no impacts would occur, and no further analysis will be conducted in the Draft EIR.

5.7 Public Services

School Facilities

As previously discussed, the Project would not directly or indirectly induce unplanned population growth in the Town. Although the Project would require employees to construct and operate the Project, these short-term and long-term employees would likely already reside within the broader Project area. As such, it is not anticipated that many people would relocate to the Town as a result of the Project, and an increase in school-age children requiring public education is not expected to occur as a result.

Similar to other development projects in the Town, the Project would be subject to Senate Bill 50, which requires payment of mandatory impact fees to offset any impact to school services or facilities. The provisions of Senate Bill 50 are deemed to provide full and complete mitigation of school facilities impacts, notwithstanding any contrary provisions in CEQA or other state or local laws (Government Code Section 65996). In accordance with Senate Bill

[1] Note that this represents a conservative approach, as this finding assumes that all future employees will have relocated to the Town as a result of the Project from outside of the Town, and that no future employees are already residents of the Town.

50, the Project Applicant would pay its fair share of impact fees based on the Project's square footage per Government Code Section 65995(h). These impact fees are required of most residential, commercial, and industrial development projects in the Town. Therefore, no impacts would occur, and no further analysis will be conducted in the Draft EIR.

Parks

The Project would construct two industrial/warehouse buildings in the Town. The Project does not propose any residential uses and would not directly or indirectly induce unplanned population growth in the Town. As such, the Project would not increase the use of existing neighborhood parks or regional parks in the Town and surrounding area. Therefore, no impacts would occur, and no further analysis will be conducted in the Draft EIR.

Other Public Facilities

Given industrial nature of the Project and the lack of population growth that would result from the Project, it is unlikely that the Project would increase the use of libraries and other public facilities. Therefore, no impacts would occur, and no further analysis will be conducted in the Draft EIR.

5.8 Recreation

Existing, Expanded, and New Recreation Facilities

The Project would construct two industrial/warehouse building and associated improvements. The Project does not propose any residential uses and would not directly or indirectly result in a substantial and unplanned increase in population growth within the Project area. As such, the Project would not increase the use of existing neighborhood parks or regional parks in the Town and surrounding area. In addition, as an industrial use, the Project does not propose recreational facilities or require the construction or expansion of recreational facilities. Therefore, no impacts would occur, and no further analysis will be conducted in the Draft EIR.

5.9 Wildfire

Impair Adopted Emergency Response Plan or Emergency Evacuation Plan

Construction activities that may temporarily restrict vehicular traffic would be required to implement appropriate measures to facilitate the passage of persons and vehicles through/around any required road closures. Typical Town requirements include prior notification of any land or road closures with sufficient signage before and during any closures, flag crews with radio communication when necessary to coordinate traffic flow, etc. The Project developer would be required to comply with these requirements, which would maintain emergency access and allow for evacuation if needed during construction activities.

The Town's General Plan designates Central Road, State Highway 18, and Bear Valley Road as evacuation routes. The Project does not propose any changes to the geometry of these roadways, and moreover, the Project's truck trips would not be directed towards these roads (as they would be directed towards I-15). Thus, it follows that these roadways' ability to serve as emergency evacuation routes would not be compromised. As a result, the Project would not significantly affect emergency response or evacuation activities. Therefore, impacts would be less than significant, and this issue will not be evaluated further in the Draft EIR.

Exacerbate Wildfire Risk due to Slope, Prevailing Winds, and Other Factors

The California Department of Forestry and Fire Protection's (CAL FIRE) Fire Hazard Severity maps have determined that the Project site is not in or near land classified as a Very High Fire Hazard Severity Zone, and impacts associated with wildfire in or near State Responsibility Areas or lands classified as Very High Fire Hazard Severity Zones are not anticipated (CAL FIRE 2024). The Project site is located in an area that is generally flat, lacking any steep slopes, and characterized as vacant land; these factors are not typically associated with the uncontrolled spread of wildfire. Therefore, impacts associated with the spread of wildfire would be less than significant, and this issue will not be evaluated further in the Draft.

Exacerbate Wildfire Risk from Installation or Maintenance of Infrastructure

As previously addressed, the Project site is not located within or near State Responsibility Areas or lands classified as Very High Fire Hazard Severity Zones. While the Project does not include the construction of fuel breaks or power lines, the Project would involve the installation of infrastructure, including water, wastewater treatment, and storm drainage facilities. The installation of this infrastructure would be typical of development within the greater Project area and would not require the use of specialized techniques or machinery that would result in temporary or ongoing impacts beyond those impacts discussed within this Initial Study. Any impacts associated with the installation of this infrastructure would be done in compliance with existing regulatory requirements, such as SWPPP requirements, that would reduce potential impacts associated with construction of these facilities to below a level of significance. Therefore, impacts associated with infrastructure exacerbating fire risk would be less than significant, and this issue will not be evaluated further in the Draft EIR.

Expose People or Structures to Significant Wildfire Risks

As discussed above, the Project site is not located within or near State Responsibility Areas or lands classified as Very High Fire Hazard Severity Zones. As discussed in the Initial Study prepared for the Project (Appendix A) the Project would not result in significant risks associated with flooding or landslides, and the Project does not propose the use of fire (such as for a controlled vegetation burn) that would result in post-fire slope instability. Therefore, impacts associated with runoff, post-fire slope instability, or drainage changes would be less than significant, and this issue will not be evaluated further in the Draft EIR.

5.10 References Cited

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6 Other CEQA Considerations

6.1 Growth-Inducing Impacts

As stated in Section 15126.2(e) of the California Environmental Quality Act (CEQA) Guidelines, an environmental impact report (EIR) is required to include a discussion of a project's growth-inducing effects. The CEQA Guidelines generally describe such effects as follows: (1) economic growth, population growth, or additional housing in the surrounding environment; (2) removal of obstacles to population growth (e.g., a major expansion of a wastewater treatment facility that allows for more construction in the service area); (3) increases in population that tax existing services requiring construction of new facilities that could cause significant environmental effects; and (4) characteristics of a project that would encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively.

The Inland Empire North Logistic Center Apple Valley Project (Project) would require a temporary construction workforce and a permanent operational workforce, both of which could potentially induce population growth in the Project area. The temporary workforce would be needed to construct the two industrial/warehouse buildings and associated improvements. The number of construction workers needed during any given period would largely depend on the specific stage of construction, but would likely range from a dozen to several dozen workers on a daily basis.

Because the future tenants are not known yet, the number of jobs that the Project would generate cannot be precisely determined. Thus, for purposes of analyses, employment estimates were calculated using average employment density factors reported by the Southern California Association of Governments. The Southern California Association of Governments reports that for every 1,195 square feet of warehouse space in San Bernardino County, the average numbers of jobs supported is one employee (Natelson Company Inc. 2001). The Project would include 2,604,446 square feet of industrial/warehouse space, excluding associated improvements. As such, the estimated number of employees required for operation would be approximately 2,179.

According to the 2021 U.S. Census, the population of the Town was approximately 76,224 residents (U.S. Census Bureau 2021). According to the Town's General Plan, upon build-out, the Town could support a population of 185,858 residents (Town of Apple Valley 2009). As such, the Project-related increase of approximately 2,179 employees would represent a nominal percentage of the Town's projected future population upon General Plan buildout. As such, the Project's temporary and permanent employment requirements could likely be met by the Town's existing labor force without people needing to relocate into the Project region, and the Project would not stimulate population growth or a population concentration above what is assumed in local and regional land use plans.

Projects that physically remove obstacles to growth, or projects that indirectly induce growth, are those that may provide a catalyst for future unrelated development in the area. The Project would involve installation of new water and sewer lines in the Project vicinity. The purpose of these new utilities is solely to serve the needs of the Project, and not to provide capacity for future projects or growth. Although new roadway construction is planned as part of the Project (i.e., construction improvements along outer I-15 Road), the construction of these roadways would occur only at the Project frontage and is necessary to provide for adequate circulation in the Project area; thus, the Project would not result in indirect population growth by providing vehicular access to an area presently lacking such access.

Based on the proximity of the Project site to existing facilities, the average response times in the Project area, the ability for nearby cities to respond to emergency calls, and the fact that the Project site is already located within the Apple Valley Fire Protection District and Apple Valley Police Department service areas, the Project would be adequately served by public services without the construction of new, or the expansion of existing, facilities. Although the Project could potentially result in an incremental increase in calls for service to the Project site compared to existing conditions, this increase is expected to be nominal (as opposed to new residential or commercial/retail land uses, which do result in greater increase in calls for service) and would not result in the need for new or expanded fire or police facilities. Lastly, since the Project would not directly or indirectly induce unplanned population growth in the Town, it is not anticipated that many people would relocate to the Town as a result of the Project, and an increase in school-age children requiring public education is not expected to occur as a result. Thus, the need for new or expanded school facilities is not required.

In conclusion, the Project could cause population growth through new job opportunities. However, this growth falls well within Town and regional growth projections for population and housing. The Project would not remove obstacles to population growth, and would not cause an increase in population such that new community facilities or infrastructure would be required outside of the Project site. Lastly, the Project is not expected to encourage or facilitate other activities that could significantly affect the environment, as explained above. For these reasons, the Project is not considered to be significantly growth inducing.

6.2 Significant Irreversible Changes

The CEQA Guidelines requires that an EIR address any significant irreversible changes that would be caused by implementation of a project. According to CEQA Guidelines Section 15126.2(c), such a change would involve one or more of the scenarios discussed below.

6.2.1 Changes in Land Use that Commits Future Generations to Similar Uses

According to the Town of Apple Valley General Plan and the Apple Valley Municipal Code, the land use and zoning designations for the Project site are Regional Commercial (C-R) (Town of Apple Valley 2009, 2019). Additionally, the Project site is located within the Warehouse Distribution Regional Commercial (C-R) Overlay, as designated on the Town's Zoning Map. As discussed in Section 4.9, Land Use and Planning, of this EIR, the Project is consistent with the Project site's land use and zoning designations applied by the Town of Apple Valley General Plan and the Apple Valley Municipal Code. As such, although construction of the Project would develop a total of 2,604,446 square feet of industrial/warehouse space on the Project site, the Town already committed the site to industrial/warehouse (and similar) uses when the Town designated and zoned the site as Regional Commercial (C-R) and designated it within the Distribution Regional Commercial (I-N) Overlay zone on the Town's Zoning Map.

Land uses surrounding the Project site primarily consist of vacant land and the Calportland aggregate mine. However, existing and approved large-scale industrial facilities are located in the broader Project area within 2 to 3 miles of the Project site. Since the Project site is located near existing urbanized uses, including other industrial uses, the Project would result in land use changes that would commit future generations to uses that already occur in the Project area. Thus, implementation would commit future generations to similar uses, given that this proposed use is already found throughout the Town.

6.2.2 Irreversible Damage from Environmental Accidents

Potential environmental accidents of concern include those events that would adversely affect the environment or public due to the type of quantity of materials released and the receptors exposed to that release. Construction activities associated with the Project would involve some risk of environmental accidents. However, these activities would be conducted in accordance with all applicable federal, state, and local regulations, and would follow professional industry standards for safety. Once operational, any materials associated with environmental accidents would comply with applicable federal, state, and local regulations. Use of any such materials would not adversely affect the environment or public due to the type or quantity of materials released and the receptors exposed to that release.

6.2.3 Large Commitment of Nonrenewable Resources

Commitment of nonrenewable resources includes issues related to increased energy consumption and lost access to mining reserves. There would be an irretrievable commitment of labor, capital, and materials used during the construction and operation of the Project. Nonrenewable resources would primarily be committed in the form of fossil fuels such as fuel, oil, natural gas, and gasoline used by equipment associated with construction of the Project. Consumption of other nonrenewable or slowly renewable resources would also occur. These resources would include lumber and other forest products, sand and gravel, asphalt, and metals such as steel, copper, and lead.

To ensure that energy implications are considered in project decisions, CEQA requires that EIRs include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy (California Public Resources Code Section 21100[b][3]). Energy conservation implies that a project's cost-effectiveness be reviewed not only in dollars, but also in terms of energy requirements. For many projects, cost-effectiveness may be determined more by energy efficiency than by initial dollar costs. A lead agency may consider the extent to which an energy source serving a project has already undergone environmental review that adequately analyzed and mitigated the effects of energy production.

Consistent with California Public Resources Code Section 211009(b)(3), CEQA Guidelines Appendix G, and a ruling set forth by the court in *California Clean Energy Committee v. City of Woodland*, potentially significant energy implications of a project must be considered in an EIR to the extent relevant and applicable to that project. Accordingly, based on the energy consumption thresholds set forth in both Appendix F and Appendix G of the CEQA Guidelines, the Project's estimated energy demands (both short-term construction and long-term operational demands) were evaluated (see Section 4.5, Energy, of this EIR). The overall purpose of the energy analysis was to evaluate whether the Project would result in the wasteful, inefficient, or unnecessary consumption of energy.

As discussed in Section 4.5, the Project would comply with California Title 24 energy efficiency requirements. The Project would incorporate mitigation measures that, when implemented, would reduce consumption of energy resources to the extent possible. On this basis, the Project would not result in the inefficient, wasteful, or unnecessary consumption of energy.

6.3 Significant and Unavoidable Impacts

Pursuant to CEQA Guidelines Section 15126.2(b), an EIR must address any significant environmental impacts, including those that can be mitigated but not reduced to less than significant as a result of implementation of a project. As discussed throughout Chapter 4, Environmental Analysis, of this EIR, at the Project and cumulative

levels, the Project would result in significant and unavoidable impacts related to air quality, and greenhouse gas emissions. For all other environmental issue areas, the Project would result in either less-than-significant impacts or no impact.

6.4 References Cited

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7 Alternatives

7.1 Alternatives to the Proposed Project

In accordance with California Environmental Quality Act (CEQA) Section 15126.6, this chapter of the Environmental Impact Report (EIR) contains a comparative evaluation of the Inland Empire North Logistics Center Apple Valley Project (Project) with alternatives to the Project, including a No Project Alternative. Consistent with CEQA Section 15126.6, this chapter focuses on alternatives to the Project that are capable of avoiding or substantially reducing any significant adverse impacts associated with the Project, even if the alternatives may impede attainment of Project objectives or prove less cost efficient. In addition, implementation of a Project alternative may potentially result in new impacts that would not have resulted from the Project.

The CEQA Guidelines require that the analysis of alternatives provide sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with a proposed project. Specifically, CEQA Guidelines Section 15126.6(a) outlines the scope of alternatives to a proposed project that must be evaluated:

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 that 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.

Under case law and CEQA Guidelines Section 15126.6(f), the discussion of alternatives is subject to a rule of reason, and need not be exhaustive. CEQA Guidelines Section 15126.6(d) states that "if an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternatives shall be discussed, but in less detail than the significant effects of the project as proposed." Determining factors that may be used to eliminate alternatives from detailed consideration in an EIR are (a) failure to meet most of the basic project objectives, (b) infeasibility, or (c) inability to avoid significant environmental impacts. CEQA Guidelines Section 15364 defines "feasibility" as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors."

An EIR need not consider a project alternative whose effects cannot be reasonably ascertained, whose implementation is remote and speculative, or whose execution does not substantially lessen or avoid the significant effects of a proposed project.

As discussed throughout Chapter 4, Environmental Analysis, of this EIR, at the Project and cumulative levels, the Project would result in significant and unavoidable air quality, greenhouse gas (GHG) emissions, and transportation impacts. For all other environmental issue areas, the Project would result in either less-than-significant impacts or no impact.

7.2 Project Objectives

Consistent with the Project's purpose and need, the primary objectives sought by the Project are as follows:

Objective 1: Develop large-format industrial to stimulate job growth and meet existing demand for large-format industrial buildings in the region.

Objective 2: Develop a fiscally sound, jobs-producing, and tax-generating land use in north Apple Valley.

Objective 3: Implement general plan goals to concentrate nonresidential uses near existing roadways, highways, and freeways in an effort to isolate and reduce any potential environmental impacts related to truck traffic congestion, air emissions, industrial noise, and biological resources to the greatest extent feasible.

Objective 4: Create a project that takes advantage of and enhances existing infrastructure, including the proximity to major regional roadways, railroad service corridors, and other similar infrastructure.

Objective 5: Efficiently develop the land to the highest and best allowable land use compatible with the Town's General Plan and Zoning Code.

7.3 Project 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 an EIR are failure to meet most of the basic objectives of the project, infeasibility, or inability to avoid significant environmental impacts.

With respect to the feasibility of potential alternatives to a proposed project, CEQA Guidelines Section 15126.6(f)(1) states the following:

> 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 Project alternatives to be evaluated in this EIR, a number of possible alternatives were initially considered and then rejected. Project alternatives were rejected because they could not accomplish the basic objectives of the Project, they would not have resulted in a reduction of significant adverse environmental impacts, or they were considered infeasible to construct or operate.

Alternative Land Uses

According to the Town's General Plan, the land use and zoning designation for the overall Project site is Regional Commercial (C-R). Additionally, the Project site is located within the Warehouse Distribution Regional Commercial (I-N) Overlay, as designated on the Town's Zoning Map. The Alternative land uses for the Project site, including residential, standalone retail, mining, and residential mixed-use, were considered and rejected because these land uses are not consistent with the C-R zoning designation.

Permitted uses in the C-R designation include auto malls, regional malls, business parks, factory stores and outlets, entertainment commercial, hotels and motels, restaurants, institutional and public uses. Additional uses allowed within the warehouse distribution overlay (I-N) designation are eCommerce fulfillment and distribution centers. The minimum size for a Regional Commercial project site is 10 acres. Land uses that deviate from these activities, including residential, standalone retail, mining, and residential mixed-use, are not identified in the Town's General Plan as being suitable within the C-R zone (Town of Apple Valley 2009).

As such, without approval of a General Plan Amendment and Zone Change, which are discretionary approvals, and are not required for the Project, residential and residential mixed-use land uses could not be developed upon the Project site.

Alternate Sites

CEQA does not require that an analysis of alternate sites always be included in an EIR. However, if the surrounding circumstances make it reasonable to consider an alternate site, then a project alternative should be considered and analyzed in the EIR. Pursuant to CEQA Guidelines Section 15126.6(f)(2), in making the decision to include or exclude analysis of an alternate 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."

Development of the Project in an alternate location would have similar impacts as would occur with implementation of the Project at its proposed location. Thus, moving the Project to an alternative site – assuming that another approximately 178-acre property exists within the Town and is available – would merely displace environmental impacts instead of avoiding or minimizing them. Specifically, biological impacts would be expected to be similar because areas of the Town designated for this type of use have similar biological resources. Biological impacts at an alternative location may potentially be increased due to an approximately 20-acre portion of the Project site currently being disturbed by stockpiling activities and an associated metal storage structure, thereby reducing the Project's potentially significant impacts to approximately 165 acres as discussed in Section 4.3.4, Impacts Analysis.

Further, if the alternate site were to be located farther from major regional transportation routes (e.g., I-15 and other local truck routes), operational impacts associated with traffic congestion, truck noise, and tailpipe air contaminant emissions would likely be greater than those associated with the Project and disclosed in this EIR, as the vehicles would need to travel farther on local roads to reach regional highway systems.

Moreover, according to the Southern California Association of Governments (SCAG) Comprehensive Regional Goods Movement Plan and Implementation Strategy, the region will run out of suitably zoned vacant land designated for warehouse facilities in or around 2028. At that time, forecasts show that the demand for warehousing space will be more than 1 billion square feet. The Comprehensive Regional Goods Movement Plan and Implementation Strategy also states that unless other land not currently zoned for warehousing becomes available, SCAG forecasts that by 2035, a projected shortfall of space of approximately 227 million square feet will occur (SCAG 2013). Thus, it is likely that selection of an alternate site would merely displace the development activity proposed by the Project to another location, resulting in the same or greater environmental effects, given the regional demand for logistics and warehousing space in the SCAG region.7.4 Project Alternatives Under Further Consideration

This section describes the alternatives to the Project that were selected and analyzed according to CEQA Guidelines Section 51526.6(a). These four alternatives, including the No Project Alternative, represent a reasonable range of

alternatives to the Project that would feasibly attain some of the Project's basic objectives and would avoid or substantially lessen significant adverse environmental effects of the Project. The following four alternatives, were selected for comparative analysis in this EIR:

Alternative 1: No Development Alternative. This alternative would entail no action at the Project site.

Alternative 2: No Project Alternative. This alternative would entail development of a different use allowed by right in the Regional Commercial (C-R) District.

Alternative 3: Electric Vehicle Charging Station Alternative. This alternative would entail development of an electric vehicle (EV) charging station to service local residents and travelers on Interstate 15.

Alternative 4: Reduced Development Intensity Alternative. This alternative would entail development of two warehouses similar to the Project but with an overall building space reduction of 50%.

The analysis below presents the alternatives to the Project that were considered. Each alternative was examined for its ability to reduce environmental impacts relative to the Project, feasibility of implementation, and ability to meet Project objectives.

An environmentally superior alternative is identified among the alternatives evaluated in this EIR. An alternative would be environmentally superior to the Project if it would result in fewer or less significant environmental impacts while achieving most of the Project objectives.

7.3.1 No Development Alternative (Alternative 1)

Project Alternative 1 Summary

Under Alternative 1, construction of the Project would not occur. The Project site would remain unchanged, and development activities related to construction and operation of the proposed industrial/warehouse buildings, associated loading docks, truck and vehicle parking, landscaped areas, and all other proposed on- and off-site improvements would not occur. Consistent with the existing conditions, the Project site would continue to be predominantly undeveloped. Under Alternative 1, the Project site would remain vacant, undeveloped land, although a portion of the site would presumably continue to be used for stockpiling activities, including the metal storage structure associated with the stockpiling activities. Additionally, the Project site would likely continue to be subject to illegal dumping, trespassing, and unpermitted off-road vehicle use, similar to the existing conditions.

It is feasible that no development would occur on the Project site in the near term or long term due to development types being driven by market conditions. Current market conditions are favorable to warehouse distribution in the Apple Valley area, whereas other development types such as large-format retail and service uses would be driven by local population making the development of those uses less economically feasible. Residential and neighborhood commercial development would not be allowed by right on the Project site and would require a General Plan amendment and a zoning change. The proximity of the Calportland mine to the Project site also makes it an unlikely location for residential or neighborhood commercial development.

Project Alternative 1 Impact Analysis

The Project site would remain unchanged and would remain a vacant, undeveloped, yet disturbed property with a portion of the site used for stockpiling activities. The metal storage structure would remain, and on-site conditions would remain similar to existing conditions, and because development activities associated with the Project would not occur, nearly all environmental impacts would be reduced compared with Project conditions. Exceptions would include impacts related to agricultural and forestry resources, population and housing, recreation, and wildfire, which would result in no impact, whether or not the Project is constructed on the Project site.

Impacts associated with hydrology and water quality would likely be greater under Alternative 1 than with the Project, as the new engineered stormwater drainage system would not be constructed on the Project site as proposed under the Project. Under existing conditions, no storm drain or treatment facilities are currently found on site, and thus, stormwater is not presently collected or treated on the Project site prior to being discharging off site. This same stormwater drainage scenario would continue to occur under Alternative 1, resulting in greater impacts related to surface drainage, water quality, erosion, and potentially periodic isolated flooding.

Project Alternative 1 Impact Conclusion

Overall, none of the mitigation measures required for the Project would be necessary with Alternative 1, and this Project alternative would not result in any significant adverse and unavoidable impacts. However, Alternative 1 would not develop large-format industrial buildings to stimulate job growth and meet the existing and growing demand for large-format industrial buildings in the region (Objective 1); develop a fiscally sound, jobs-producing, and tax-generating land use in north Apple Valley (Objective 2); concentrate nonresidential uses near existing roadways, highways, and freeways in an effort to isolate and reduce any potential environmental impacts related to truck traffic congestion, air emissions, industrial noise, and biological resources to the greatest extent feasible (Objective 3); or create a project that takes advantage of and enhances existing infrastructure, including the proximity to major regional roadways, railroad service corridors, and other similar infrastructure (Objective 4). As such, Alternative 1 would not meet any of the Project objectives.

7.3.2 No Project Alternative (Alternative 2)

CEQA Guidelines Section 15126.6(e)(3)(B) describes the “No Project” Alternative as the circumstance under which the project does not proceed. The purpose of describing and analyzing a No Project Alternative is to allow decision-makers the ability to compare the impacts of approving the proposed project with the impacts of not approving the proposed project (CEQA Guidelines Section 15126.6[e][1]). The No Project Alternative includes those activities that would reasonably be expected to occur in the foreseeable future if the Project were not approved.

Project Alternative 2 Summary

Should the proposed Project not be approved, the Project site would likely be developed with another use that is allowed by the current General Plan and Zoning Ordinance. Under Alternative 2, the Project site would be developed with other land uses, consistent with the property’s C-R(I-N) designation. Due to the Project site size of approximately 178 acres, it is feasible to assume an alternative development would be a large-scale retail use.

The Regional Commercial land use category allows retail uses that serve not only the residents and businesses of Apple Valley, but also of the surrounding region. Permitted uses in this designation include auto malls, regional malls, business

parks, factory stores and outlets, entertainment commercial, hotels and motels, restaurants, EV charging stations, and institutional and public uses. The minimum size for a Regional Commercial project site is 10 acres.

No zoning variances are being requested as part of the Project, and thus, the Project would be constructed consistent with the design requirements set forth for the C-R (I-N) designation in the Apple Valley General Plan and Apple Valley Municipal Code. It is assumed that Alternative 2 would involve development of a land use that would be permissible either by right or by a conditional use permit, including the aforementioned land uses listed above. For purposes of this analysis and given the Project site's proximity to major regional transportation routes (e.g., I-15 and other local truck routes), it is assumed that Alternative 2 would consist of a 600,000-square-foot regional mall on an approximately 80-acre portion of the Project site. Such an alternative could take the form of many smaller buildings or one large building. As discussed in Section 7.3, Project Alternatives Considered by Rejected, of this EIR, land uses that are expressly not allowed in the C-R zone—specifically residential—would not be considered under Alternative 2.

Project Alternative 2 Impact Analysis

It is assumed that Alternative 2 would be subject to the same federal, state, and local requirements (e.g., incorporation of a new engineered stormwater drainage system, architectural design review) as the Project. Under Alternative 2, the Project's development footprint would be reduced compared to the Project. As a result, it is assumed that a similar reduction in the operational intensity and duration of construction activities would occur. Likewise, a smaller building footprint would be expected to support fewer operational activities than the larger footprints proposed as part of the Project. Thus, the severity of many environmental impacts related to construction and operational phases would be either the same or incrementally reduced under Alternative 2. However, because the development intensity would be reduced substantially under Alternative 2 compared to the Project, certain environmental impacts would differ as a result of this reduction, as the following analysis demonstrates.

In addition, the trip generation rate used to analyze the Project's estimated trip generation (refer to the Traffic Impact Analysis prepared for the Project [Appendix J]) assumed that the Project would support a mix of all warehouse types with the exception of high-cube fulfillment sort facility, which is the most intensive warehouse type. As discussed in Section 4.13, Transportation, the average trip generation rate used in the analysis of the Project's estimated trip generation is 2.36 trips per 1,000 square feet of warehouse space. Warehouse uses often have lower trip generation rates (either daily or peak hour) than some of the other land uses that are permitted by right or conditional permitted in the C-R zone and Warehouse Distribution Overlay District, including but not limited to regional malls (higher daily and peak hour trip generation rates). Table 7-1, Trip Generation Rates by Land Use, identifies the daily, peak AM, and peak PM trip generation rates for a regional mall that could reasonably be assumed to be developed at the Project site.

Table 7-1. Trip Generation Rates by Land Use

Land Use	ITE Code	Unit	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Rates[1]									
Shopping Center (>150K)	820	TSF	37.01	0.52	0.32	0.84	1.63	1.77	3.40

Notes: TSF = thousand square feet.

[1] Trip rates from the Institute of Transportation Engineers (ITE), Trip Generation, 11th Edition, 2021.

As shown in Table 7-1, the regional mall land use has a higher daily trip generation rate than that of the Project, with a regional mall (Shopping Center >150K (ITE code 820)) having a daily trip generation rate of 37.01 trips per 1,000 square feet. As such, a regional mall would potentially generate 22,206 trips per day, 504 AM peak-hour trips, and 2,040 PM peak-hour trips, resulting in greater PM peak hour and daily trip generation compared with the Project, even if the development footprint is smaller than the Project. Thus, there would be a potential for increased impacts associated with traffic congestion, tailpipe air and GHG emissions, and traffic noise under Alternative 2.

Aesthetics

Under Alternative 2, the Project would not be constructed and operated as planned on the Project site. Alternative 2 would involve the development of a large-format retail use, which would still be the primary visual feature on the Project site; however, the development would be on a smaller scale than the Project. Additionally, the Alternative would require nighttime lighting for safety and visibility as it would be assumed the regional mall would operate into the nighttime hours. For these reasons, aesthetics impacts would be similar but reduced under Alternative 2.

Air Quality

Under Alternative 2, the extent of construction activities would be the similar compared to the Project. Thus, construction-related air quality emissions would not be reduced. As with the Project, Alternative 2 would require mitigation measures to reduce short-term construction emissions of volatile organic compounds (VOCs). With required mitigation, construction of Alternative 2, would not exceed the numerical thresholds of significance established by the Mojave Desert Air Quality Management District (MDAQMD); this is the same outcome that would occur under the Project.

However, long-term operation of Alternative 2 would still likely result in significant and unavoidable impacts due to emissions of oxides of nitrogen (NO_x) and coarse particulate matter (PM_{10}), which would violate the MDAQMD regional air quality standard and would contribute to an existing air quality violation. Alternative 2 would generate an increase in average daily vehicle trips compared to the Project, and impacts due to a conflict with the regional air quality standard and the level of contribution to an existing air quality violation would remain and would be slightly increased. As such, Alternative 2 would not reduce, or avoid, the Project's significant and unavoidable impact due to operational air contaminant emissions.

As with the Project, impacts to nearby sensitive receptors would be significant and unavoidable under Alternative 2. Similar to the Project, emissions under Alternative 2 would be above the MDAQMD thresholds of significance. Therefore, air quality impacts would not be reduced to less-than-significant levels under Alternative 2 and may even be increased due to the increase in tailpipe emissions from the increased trip generation.

Biological Resources

Under Alternative 2, the allowable land uses would be constructed and operated on the entire Project site, and development intensity would not be reduced. Alternative 2 would develop 80 acres of the Project site; however, the Town of Apple Valley Development Code (Title 9 of the Town's Municipal Code) includes design standards related to landscaping, which require the entire Project site be landscaped, resulting in a similar overall building footprint. As such, the Project site and potential suitable habitat would still be disturbed as a result of development activities, which would not reduce impacts from a biological resources perspective. Therefore, biological resources impacts would be similar under Alternative 2.

Cultural, Tribal Cultural, and Paleontological Resources

Under Alternative 2, a regional mall would be constructed and operated on the Project site with a similar development intensity. Similar to the Project, the entirety of the Project site would need to be disturbed to various extents, which would result in the same potential to disturb presently unknown/unrecorded cultural, tribal cultural, and paleontological resources as the Project. Therefore, cultural resources impacts would be similar under Alternative 2.

Energy

The level of construction activities would be reduced under Alternative 2 compared to the Project. Thus, construction-related energy usage would be incrementally reduced as compared to the Project. Alternative 2 would generate more vehicle trips per day, and although it would have less building space than the proposed Project, it would likely require an increase in climate control; thus, on-site and mobile energy consumption would be increased compared to the Project. Therefore, energy impacts would not be reduced under Alternative 2.

Greenhouse Gas Emissions

Similar to air quality, the extent of construction activities would be similar but slightly reduced under Alternative 2 compared to the Project. Thus, construction-related GHG emissions would be incrementally reduced. Alternative 2 would generate an increase in vehicle trips per day due to the uses on site assumed to consist of a 600,000-square-foot regional mall. Accordingly, GHG emissions associated with long-term operation of Alternative 2 would be increased compared to the Project. As discussed above, the Project would result in significant and unavoidable impacts with regard to generating GHG emissions. Implementation of the mitigation measures under the Project and Alternative 2 would not reduce potential operation-related GHG emissions. However, the effectiveness of the mitigation measures and the associated emission reductions cannot be accurately quantified at this time, and GHG emissions impacts are inherently cumulative in nature. Similar to the Project, impacts would still remain significant and unavoidable.

Hazards and Hazardous Materials

Under Alternative 2, allowable land uses would be constructed and operated on the site, and with a similar development intensity. Similar to the Project, construction of Alternative 2 would involve a variety of hazardous substances and wastes to be stored, used, and generated on the Project site, including fuels for machinery and vehicles, new and used motor oils, cleaning solvents, paints, and storage containers. Accidental spills, leaks, fires, explosions, or pressure releases involving hazardous materials would represent a potential threat to human health and the environment if not properly treated. Incorporation of best management practices and compliance with regulations would still be required under Alternative 2, which mandates, among other requirements, safety training, exposure warnings, availability of safety equipment, and preparation of emergency action/prevention plans.

Operation of the regional mall would similarly involve the use of commercially available cleaning products, landscaping chemicals and fertilizers, and various other commercially available products during the day-to-day operation. Similar to the Project, these materials could be stored on the Project site; however, storage would be required to comply with the manufacturer's guidelines and recommendations as well as federal, state, and local requirements for transport, removal, and disposal of hazardous materials. As such, hazards and hazardous materials impacts would be similar under Alternative 2.

Hydrology and Water Quality

Under Alternative 2, a new engineered stormwater drainage system would be constructed on the Project site as proposed under the Project. Under existing conditions, no storm drain or treatment facilities are currently found on site, and thus, stormwater is not presently collected or treated on the Project site prior to being discharged off site. However, under Alternative 2, the on-site stormwater drainage system would be designed to comply with all state, regional, and local regulations related to site stormwater drainage and water quality during both construction and operation of the alternative, regardless of the size of the development. Therefore, hydrology and water quality impacts would be similar under Alternative 2.

Land Use and Planning

Similar to the proposed Project, Alternative 2 would be consistent with the Project site's existing General Plan and Zoning Code. Given the substantial similarities in uses between the Project and Alternative 2, Alternative 2 would otherwise not conflict with any plans, policies, or ordinances adopted for the purposes of mitigating or avoiding environmental effects. Therefore, land use and planning impacts would be similar under Alternative 2.

Noise

Noise associated with Alternative 2 would occur during short-term construction activities and under long-term operation. The types of construction activities conducted on the Project site would be similar under Alternative 2 and would generally cover the same physical area. The types of construction equipment used and the types of construction activities conducted on site would be similar under Alternative 2, and the peak daily noise levels generated during the construction phase would also be similar.

Under long-term operational conditions, noise generated by Alternative 2 would primarily be associated with vehicles traveling to and from the site and on-site vehicle idling, maneuvering, and parking. Alternative 2 would generate an increase in daily trips compared to the Project and, as such, would contribute to an increase in traffic-related noise to local roadways compared to the Project. The increase in traffic noise associated with Alternative 2 would continue to be noticeable to residents along the roadway segments impacted by the Project. Therefore, noise impacts would be slightly increased, but similar, under Alternative 2 due to the increase in traffic trips and associated noise.

Public Services

Under Alternative 3, allowable land uses would be constructed and operated on the Project site at a similar development intensity as the Project. Service demand is primarily tied to population, not building size. Alternative 2 would employ a similar number of workers, based on employment estimates for retail services (EIA 2022) and would similarly be consistent with the Town of Apple Valley General Plan. Therefore, impacts to public services would be similar under Alternative 2.

Transportation and Traffic

The trip generation rate used to analyze the Project's estimated trip generation (refer to the Transportation Impact Analysis prepared for the Project [Appendix J]) assumed that the Project would support a mix of all warehouse types except High-Cube Sort Fulfillment, which is the most intensive type of warehouse and is not expected for the Project. The average trip generation rate for all warehouse types except High-Cube Sort Fulfillment is 2.36 tripes per 1,000 square feet of floor space. Based on the trip generation rates in the Institute of Transportation Engineers (ITE) 2021

Trip Generation Manual, 11th Edition, a 600,000-square-foot regional mall would result in daily trips of 37.01 trips per day per 1,000 square feet, which equals 22,206 trips per day, 504 AM peak-hour trips, and 2,040 PM peak-hour trips. Mixed warehousing (excluding high-cube sort), which was the land use used to analyze the proposed Project, would generate 8,637 passenger car equivalent daily trips, 878 trips during the AM peak hour, and 878 trips during the PM peak hour. As such, allowable uses, such as a regional mall, could potentially result in greater PM peak hour and daily trip generation compared with the Project, even if the development footprint is reduced. Thus, there would be a potential for increased impacts associated with traffic congestion, tailpipe air and GHG emissions, and traffic noise under Alternative 2.

Vehicle miles traveled (VMT) are largely dependent on the specific land use type of a particular project and the location of that project. Thus, the average trip length for passenger vehicle and truck trips associated with the Project would essentially remain constant. In addition, the Project's VMT per employee would also stay relatively the same under Alternative 2 as the Project's VMT per employee. Therefore, transportation impacts with regard to VMT would be similar under Alternative 2.

With regard to the increase of hazards due to design and incompatible uses, improvement measures would still be required for Alternative 2. Additionally, street improvements under Alternative 2 would be subject to plan review by the Town's Fire Department to ensure proper access for fire and emergency response and would be designed with adequate width, turning radius, and grade to facilitate access by the Town's firefighting apparatus and to provide alternative emergency ingress and egress. Therefore, hazards and emergency access impacts would be similar under Alternative 2.

Utilities and Service Systems

Under Alternative 2, the allowable land uses would be constructed and operated on the Project site with a similar development intensity. All other on- and off-site improvements proposed as part of the Project are assumed to still be required under Alternative 2. As such, the same wet and dry utilities would be required, with construction and operational characteristics of these on- and off-site improvements being similar to the Project. Therefore, utilities and service systems impacts would be similar under Alternative 2.

Project Alternative 2 Impact Conclusion

All of the mitigation measures required for the Project would also apply to Alternative 2, as the development intensity and/or site coverage would be similar to the Project, and thus, construction and operation characteristics should also be relatively similar. There is the possibility under Alternative 2, however, that some impacts associated with air quality and GHG, and noise may be greater than those resulting from implementation of the Project, given that some of the other allowed land uses in the C-R (I-N) zone have a higher peak hour and/or daily trip generation rate.

As a retail service land use on the Project site, Alternative 2 would be expected to satisfy many of the Project objectives, including develop a fiscally sound, jobs-producing, and tax-generating land use in north Apple Valley (Objective 2); concentrate nonresidential uses near existing roadways, highways, and freeways in an effort to isolate and reduce any potential environmental impacts related to truck traffic congestion, air emissions, industrial noise, and biological resources to the greatest extent feasible (Objective 3); create a project that takes advantage of and enhances existing infrastructure, including the proximity to major regional roadways, railroad service corridors, and other similar infrastructure (Objective 4); and efficiently develop the land to the highest and best allowable land use compatible with the Town's General Plan and Zoning Code (Objective 5). Alternative 2 would not meet Objective 1,

which is to develop large-format industrial to stimulate job growth and meet existing demand for large-format industrial buildings in the region.

7.3.3 Electric Vehicle Charging Station Alternative (Alternative 3)

Under Alternative 3, the Project site would be developed with other land uses, consistent with the property's C-R (I-N) designation.

For purposes of this analysis and given the Project site's proximity to major regional transportation routes (e.g., I-15 and other local truck routes), it assumed that Alternative 3 would consist of a light-duty EV charging station with 100 charging stalls including solar canopies, associated battery/electrical infrastructure, and storage on approximately 25 acres of the Project site. Additionally, Alternative 3 would not include commercial amenities such as fast-food restaurants or convenience stores but would include restrooms for customers. Because Alternative 3 would be constructed on a 25-acre portion of the 178-acre Project site, stockpiling activities would likely continue on the approximately 20-acre portion at the northeast corner of the Project site, and the metal storage structure is assumed to remain in place.

Project Alternative 3 Impact Analysis

It is assumed that Alternative 3 would be subject to the same federal, state, and local requirements (e.g., incorporation of a new engineered stormwater drainage system, architectural design review) as the Project.

Aesthetics

Under Alternative 3, the Project would not be constructed and operated as planned on the Project site. Alternative 3 would involve the development of a 100-stall EV charging station, which would still be the primary visual feature on the Project site; however the development would be on a smaller scale than the Project. The EV charging station solar canopy would create a shorter development profile than the Project; therefore, the massing and scale of the EV charging station would have less visual impact compared to the Project. Additionally, Alternative 3 would require nighttime lighting for safety and visibility as it would be assumed the EV charging station would operate 24 hours per day but would similarly be required to comply with the Town's lighting ordinance. For these reasons, aesthetic impacts would be reduced under Alternative 3.

Air Quality

Under Alternative 3, the extent of construction activities would be reduced compared to the Project. Thus, construction-related air quality emissions would be reduced. As with the Project, Alternative 3 would require mitigation measures to reduce short-term construction emissions of VOCs. With required mitigation, construction of Alternative 3, would not exceed the numerical thresholds of significance established by MDAQMD; this is the same outcome that would occur under the Project.

However, long-term operation of Alternative 3 would result in less criteria air pollutant emissions because vehicles traveling to and from the site would not result in criteria air pollutant emissions from internal combustion engines, which are the primary source of NO_x, carbon monoxide (CO), and particulate matter emissions. Minimal particulate matter emissions would result from tire wear and tear and braking. As such, Alternative 3 would reduce, or avoid, the Project's significant and unavoidable impact due to operational air contaminant emissions.

Impacts to nearby sensitive receptors would be reduced under Alternative 3 and would likely not exceed the MDAQMD thresholds of significance. Therefore, air quality impacts would be reduced to less-than-significant levels under Alternative 3.

Biological Resources

Under Alternative 3, a light-duty EV charging station would be constructed and operated on a 25-acre portion of the Project site; however, the Town of Apple Valley Development Code (Title 9 of the Town's Municipal Code) includes design standards related to landscaping, which require the entire Project site be landscaped, resulting in a similar overall development footprint. As such, the project site and potential suitable habitat would still be disturbed as a result of development activities, which would not reduce impacts from a biological resources perspective. Therefore, biological resources impacts would be similar under Alternative 3.

Cultural, Tribal Cultural, and Paleontological Resources

Under Alternative 3, the light-duty EV charging station would be constructed and operated on the Project site. Similar to the Project, the entirety of the Project site would need to be disturbed to various extents to comply with the Town's Development Code, which requires the entire Project site be landscaped, resulting in the same potential to disturb presently unknown/unrecorded cultural, tribal cultural, and paleontological resources as the Project. Therefore, cultural resources, tribal cultural resources, and paleontological resources impacts would be similar under Alternative 3.

Energy

The level of construction activities would be reduced under Alternative 3 compared to the Project. Thus, construction-related energy usage would be incrementally reduced as compared to the project. Alternative 3 would have less building space than the Project as proposed; however, because Alternative 3 would include charging EVs, the electricity consumption would likely be increased compared to the Project. Petroleum fuel consumption during operations would be reduced under Alternative 3 as vehicles visiting the EV charging station would be assumed to be fully electric or hybrid vehicles using little to no petroleum fuel. Accordingly, overall energy usage associated with long-term operation of Alternative 3 would be slightly reduced or similar compared to the Project.

Greenhouse Gas Emissions

Similar to air quality, the extent of construction activities would be reduced under Alternative 3 compared to the Project. Thus, construction-related GHG emissions would be incrementally lessened. However, long-term operation of Alternative 3 would result in less carbon dioxide (CO_2) emissions because vehicles traveling to and from the site are assumed to be either electric and/or hybrid vehicles. Alternative 3 would result in a reduction in CO_2 or other GHG emissions from internal combustion engines, which are a primary source of CO_2 emissions. Alternative 3 would avoid the Project's significant and unavoidable impact due to operational GHG emissions to less than significant.

Hazards and Hazardous Materials

Under Alternative 3, allowable land uses would be constructed and operated on the site, with a reduced development intensity. Similar to the Project, construction of Alternative 3 would involve a variety of hazardous substances and wastes to be stored, used, and generated on the Project site, including fuels for machinery and vehicles, new and used motor oils, cleaning solvents, paints, and storage containers. Accidental spills, leaks, fires, explosions, or pressure releases involving hazardous materials would represent a potential threat to human health

and the environment if not properly treated. Incorporation of best management practices and compliance with regulations would still be required under Alternative 3, which mandates, among other requirements, safety training, exposure warnings, availability of safety equipment, and preparation of emergency action/prevention plans.

Operation of the allowable land uses would reduce the use of commercially available cleaning products but would similarly involve the use of cleaning supplies during the day-to-day operation. Similar to the Project, these materials could be stored on the Project site; however, storage would be required to comply with the manufacturer's guidelines and recommendations as well as federal, state, and local requirements for transport, removal, and disposal of hazardous materials. As such, hazards and hazardous materials impacts would be similar under Alternative 3.

Hydrology and Water Quality

Under Alternative 3, a new engineered stormwater drainage system would be constructed on the Project site as proposed under the Project. Under existing conditions, no storm drain or treatment facilities are currently found on site, and thus, stormwater is not presently collected or treated on the Project site prior to being discharged off site. However, under Alternative 3, the on-site stormwater drainage system would be designed to comply with all state, regional, and local regulations related to site stormwater drainage and water quality during both construction and operation of the alternative, regardless of the size of the development. Therefore, hydrology and water quality impacts would be similar under Alternative 3.

Land Use and Planning

Similar to the proposed Project, Alternative 3 would be consistent with the Project site's existing General Plan and Zoning Code. Alternative 3 would not conflict with any plans, policies, or ordinances adopted for the purposes of mitigating or avoiding environmental effects. Therefore, land use and planning impacts would be similar under Alternative 3.

Noise

Noise associated with Alternative 3 would occur during short-term construction activities and under long-term operation. The types of construction activities conducted on the Project site would be similar under Alternative 3 and would generally cover the same physical area, but would be shorter in duration. The types of construction equipment used and the types of construction activities conducted on site would be similar under Alternative 3, and the peak daily noise levels generated during the construction phase would also be similar.

Under long-term operational conditions, noise generated by Alternative 3 would primarily be associated with vehicles traveling to and from the site and on-site vehicle idling, maneuvering, and parking. Alternative 3 would generate an increase in daily trips compared to the Project and, as such, would contribute to an increase in traffic-related noise to local roadways compared to the Project. The increase in traffic noise associated with Alternative 3 would continue to be noticeable to residents along the roadway segments impacted by the Project. Therefore, noise impacts would be slightly increased but similar under Alternative 3 due to the increase in traffic trips and associated noise.

Public Services

Under Alternative 3, allowable land uses would be constructed and operated on the Project site, at a similar development intensity as the Project. Service demand is primarily tied to population, not building size. Alternative 3 would not employ any employees. Therefore, impacts to public services would be reduced under Alternative 3.

Transportation and Traffic

The trip generation rate used to analyze the Project's estimated trip generation (refer to the Transportation Impact Analysis prepared for the Project [Appendix J]) assumed that the Project would support a mix of all warehouse types except High-Cube Sort Fulfillment, which is the most intensive type of warehouse and is not expected for the Project. The average trip generation rate for all warehouse types except High-Cube Sort Fulfillment is 2.36 trips per 1,000 square feet of floor space. Warehousing uses often have lower trip generation rate (either daily or peak hour) than other land uses that are permitted by right or conditional permit in the C-R zone. As discussed in Section 4.13, the Project would generate 8,367 daily passenger car equivalent trips. Although trip generation rates for EV charging stations have not been standardized, based on the trip generation rates in the ITE 2021 Trip Generation Manual, 11th Edition, for Gasoline/Service Stations (ITE Code 944), a service station without convenience store would result in 172.01 trips per day per vehicle fueling position; therefore, Alternative 3 would be expected to generate 17,201 daily trips. It should be noted that EV charging stations likely have a lower turnover rate than gasoline service stations due to extended charging times (e.g., vehicles usually spend 20 minutes or more charging, whereas petroleum fueled vehicles usually spend less than 10 minutes fueling), and the peak times are also likely different than gasoline service stations; therefore, daily trips generated by Alternative 3 using ITE trip generation rates for gasoline service stations may be overstated. Therefore, it should be considered that the overall impacts related to trip generation would likely be similar to the Project.

Impacts related to Project VMT were determined to be less than significant because it did not increase service population VMT with Project conditions. Alternative 3 would fall within the category of project types described in Section 4.13.4, Impacts Analysis, that qualify to be screened out from conducting project-specific VMT analysis as a local serving fueling station (although there is a distinction between an EV charging station and a fueling station, for purposes of VMT analysis the uses are comparable). Therefore, transportation impacts with regard to VMT would be similar under Alternative 3.

With regard to the increase of hazards due to design and incompatible uses, improvement measures would still be required for Alternative 3; additionally, street improvements under Alternative 3 would be subject to plan review by the Town's Fire Department to ensure proper access for fire and emergency response and would be designed with adequate width, turning radius, and grade to facilitate access by the Town's firefighting apparatus and to provide alternative emergency ingress and egress. Therefore, hazards and emergency access impacts would be similar under Alternative 3.

Utilities and Service Systems

Under Alternative 3, the allowable land uses would be constructed and operated on the Project site. All other on- and off-site improvements proposed as part of the Project are assumed to still be required under Alternative 3. As such, the same wet and dry utilities would be required, with construction and operational characteristics of these on- and off-site improvements being similar to the Project. Therefore, utilities and service systems impacts would be similar under Alternative 3.

Project Alternative 3 Impact Conclusion

Although Alternative 3 would likely reduce significant and unavoidable impacts related to air quality impacts and GHG emissions, it would not satisfy many of the Project objectives, including Objective 1, which is to develop large-format industrial buildings to stimulate job growth and meet existing demand for large-format industrial buildings in the region; Objective 2, which is to develop a fiscally sound, jobs-producing, and tax-generating land use in north

Apple Valley; or Objective 5, which is to efficiently develop the land to the highest and best allowable land use compatible with the Town's General Plan and Zoning Code.

7.3.4 Reduced Development Intensity Alternative (Alternative 4)

In accordance with CEQA Section 15126.6, the purpose of conducting a Project alternative comparative analysis is to identify potential alternatives to the Project that are capable of avoiding or substantially reducing any significant adverse impacts associated with the Project, even if the alternatives may impede attainment of project objectives or prove less cost efficient. As a reminder, this EIR has identified the following Project impacts that would be significant and unavoidable.

As discussed in Section 4.2, Air Quality, of this EIR, the Project would exceed the numerical thresholds of significance established by the MDAQMD for emissions of NO_x and PM_{10}. Although mitigation measures have been recommended to minimize operational-related air quality impacts (MM-AQ-1), no feasible mitigation measures or Project design features beyond those already identified exist that would reduce these emissions to levels that are less than significant. Therefore, even with the incorporation of mitigation, long-term impacts associated with a cumulatively considerable net increase of criteria pollutants for which the Project region is non-attainment would be significant and unavoidable.

Operation of the Project could result in exceedances of the MDAQMD significance thresholds for NO_x and PM_{10}, and the Project would potentially result in health effects associated with those pollutants. Because construction of the Project would not exceed any MDAQMD thresholds (after implementation of MM-AQ-1), and operation of the Project would not exceed the MDAQMD thresholds for CO, VOC, SO_x or fine particulate matter ($PM_{2.5}$), and because the MDAQMD thresholds are based on levels that the Mojave Desert Air Basin can accommodate without affecting the attainment date for the ambient air quality standards and the ambient air quality standards are established to protect public health and welfare, the Project is not anticipated to result in health effects associated with CO, VOC, SO_x or $PM_{2.5}$. However, because operation of the Project could result in exceedances of MDAQMD significance thresholds for NO_x and PM_{10}, even after implementation of mitigation measures, the potential health effects associated with criteria air pollutants are conservatively considered significant and unavoidable. For these reasons, impacts associated with the conflicting with the MDAQMD would be significant and unavoidable.

As discussed in Section 4.6, Greenhouse Gas Emissions, of this EIR, the Project would result in potentially significant impacts with regard to generating GHG emissions. Implementation of mitigation measures MM-AQ-1 would reduce potential air quality impacts (in Section 4.2 in this EIR) and mitigation measures MM-GHG-1, MM-GHG-2 and MM-GHG-3 would also reduce operation-related GHG emissions. However, the effectiveness of the mitigation and the associated emission reductions cannot be accurately quantified at this time and GHG emissions impacts are inherently cumulative in nature. As such, impacts on the Project-level and cumulatively would remain significant and unavoidable.

Project Alternative 4 Summary

Presently, the only approach to reducing the Project's operational-related air quality and GHG emission impacts would be to reduce the total number of daily trips and employees generated by the Project. As such, in an effort to reduce the Project's significant and unavoidable impacts, the Town considered a Reduced Development Intensity Alternative (Alternative 4).

Under Alternative 4, the Project would be constructed and operated as planned on the Project site, with the exception that the size of the proposed development would be reduced by 50%, equating to an industrial/warehouse project consisting of approximately 1,302,223 square feet, compared to the Project's 2,604,446 square feet. Since the building footprint would be reduced by 1,302,223 square feet (approximately 30 acres), this extra space on the Project site would remain vacant. All other on- and off-site improvements proposed as part of the Project are assumed to still be required under Alternative 4.

Project Alternative 4 Impact Analysis

Under Alternative 4, the Project's development footprint would be reduced by 50% compared to the Project. As a result, it is assumed that a similar reduction in the operational intensity and duration of construction activities would occur. Likewise, a smaller building footprint would be expected to support fewer operational activities than the larger footprints proposed as part of the Project. Thus, the severity of many environmental impacts related to construction and operational phases would be either the same or incrementally reduced under Alternative 4. However, because the development intensity would be reduced substantially under Alternative 4 compared to the Project, certain environmental impacts would differ as a result of this reduction, as the following analysis demonstrates.

Aesthetics

Under Alternative 4, the Project would be constructed and operated as planned on the Project site, with the exception that the size of the proposed development would be reduced by 50%, equating to the 1,302,223 square feet (approximately 30 acres) of extra space on the Project site that would likely be developed with a similar landscape concept to that surrounding the industrial buildings. A reduction in building square footage would reduce the scale and massing of the buildings. Additionally, the increase in landscaped area would soften the visual impact of the buildings. Nonetheless, Alternative 4 would still involve the development of approximately, 1,302,223 square feet of industrial space, which would still be the primary visual feature on the Project site. For these reasons, aesthetics impacts would be similar but lessened under Alternative 4.

Air Quality

Under Alternative 4, the extent of construction activities would be reduced compared to the Project. Thus, a 50% reduction in Project size would reduce construction-related air quality emissions approximately 50%. As with the Project, Alternative 4 would require mitigation measures to reduce short-term construction emissions of VOCs. With required mitigation, Alternative 4, would not exceed the numerical thresholds of significance established by the MDAQMD during construction; this is the same outcome that would occur under the Project.

Operations under Alternative 4 would generate fewer vehicle trips per day due to the reduction in the amount of building space. Accordingly, air pollutant emissions associated with long-term operation of Alternative 4 would be lessened by approximately 50% compared to the Project.

However, Alternative 4 would still require implementation of mitigation measures similar to those imposed for the Project. Even with incorporation of mitigation measures, long-term operation of Alternative 4 would still likely result in significant and unavoidable impacts due to emissions of NO_x and PM_{10}, which would violate the MDAQMD regional air quality standard and would contribute to an existing air quality violation. Because Alternative 4 would generate fewer average daily vehicle trips than would occur under the Project, impacts due to a conflict with the regional air quality standard and the level of contribution to an existing air quality violation would be minimized, but

still not eliminated or reduced to less-than-significant levels. As such, Alternative 4 would reduce, but not avoid, the Project's significant and unavoidable impact due to operational air contaminant emissions.

As with the Project, impacts to nearby sensitive receptors would be significant and unavoidable under Alternative 4. Similar to the Project, emissions under Alternative 4 would be above the MDAQMD thresholds of significance. However, these impacts to sensitive receptors would be reduced under Alternative 4 due to the reduction in daily vehicular trips compared to the Project. Therefore, air quality impacts would be lessened, but not reduced to less-than-significant levels, under Alternative 4.

Biological Resources

Under Alternative 4, the Project would be constructed and operated as planned on the entire Project site, although the development intensity would be reduced. Compared to the Project, Alternative 4 would develop less of the Project site, resulting in a smaller overall building footprint. However, in accordance with the Town's development standards, these areas would not be allowed to be completely unimproved, but instead would still need to be landscaped. As such, any vacant land and potential suitable habitat in these areas would still be disturbed as a result of landscaping activities, reducing any benefits from a biological resources perspective. Therefore, biological resources impacts would be similar under Alternative 4.

Cultural, Tribal Cultural, and Paleontological Resources

Under Alternative 4, the Project would be constructed and operated as planned on the Project site, but with a reduced development intensity. Compared to the Project, Alternative 4 would develop less of the Project site with buildings, parking and loading areas, and other associated improvements, resulting in a smaller overall building footprint on the site that would disturb less land. However, as previously discussed, Alternative 4 would likely not be able to maintain vacant areas on the Project site, but instead would still need to landscape these locations. As such, the entirety of the Project site would need to be disturbed to various extents, which would result in the same potential to disturb presently unknown/unrecorded cultural, tribal cultural, and paleontological resources as the Project. Therefore, cultural resources impacts would be similar under Alternative 4.

Energy

The level of construction activities would be reduced under Alternative 4 compared to the Project. Thus, construction-related energy usage would be lessened. Alternative 4 would also generate fewer vehicle trips per day due and would have a less building space than the Project as proposed, result in less on-site and mobile energy consumption. Accordingly, energy usage associated with long-term operation of Alternative 4 would be lessened compared to the Project. Therefore, energy impacts would be reduced under Alternative 4.

Greenhouse Gas Emissions

Similar to air quality, the extent of construction activities would be reduced under Alternative 4 compared to the Project. Thus, construction-related GHG emissions would be lessened. Alternative 4 would also generate fewer vehicle trips per day due to the reduction in the amount of building space. Accordingly, GHG emissions associated with long-term operation of Alternative 4 would be lessened compared to the Project. As discussed above, the Project would result in significant and unavoidable impacts with regard to generating GHG emissions. Implementation of the mitigation measures under the Project and Alternative 4 would reduce potential operation-related GHG emissions. However, the effectiveness of the mitigation measures and the associated emission reductions cannot be accurately quantified at this time and GHG emissions impacts are inherently cumulative in

nature. Therefore, GHG emissions impacts would be reduced under Alternative 4, but would still remain significant and unavoidable.

Hazards and Hazardous Materials

Under Alternative 4, the Project would be constructed and operated as planned on the site, with the exception that the development intensity would be reduced. Incorporation of all applicable federal, state, and local agencies and regulations, including the EPA, Department of Toxic Substances Control, CAL/OSHA, RCRA, and the Apple Valley Fire Protection District concerning the use of hazardous materials would still be required under Alternative 4, which mandates, among other requirements, the removal and disposal of on-site debris and used tires from the Project area in accordance with all applicable guidelines, and that a qualified environmental professional shall screen soils in the identified area prior to excavation and grading based on the nature of the potential contamination. As such, under Alternative 4, the cleanup activities required pursuit to all applicable federal, state, and local agencies and regulations, including the EPA, Department of Toxic Substances Control, CAL/OSHA, RCRA, and the Apple Valley Fire Protection District would be initiated, and the Project would still help to remediate the Project site through compliance with all applicable federal, state, and local agencies and regulations, including the EPA, Department of Toxic Substances Control, CAL/OSHA, RCRA, and the Apple Valley Fire Protection District. Therefore, hazards and hazardous materials impacts would be similar under Alternative 4.

Hydrology and Water Quality

Under Alternative 4, the new engineered stormwater drainage system would be constructed on the Project site as proposed under the Project. Under existing conditions, no storm drain or treatment facilities are currently found on site, and thus, stormwater is not presently collected or treated on the Project site prior to being discharging off site. However, under Alternative 4, the Project and its on-site stormwater drainage system would be designed to comply with all state, regional, and local regulation related to site stormwater drainage and water quality during both construction and operation of the Project, regardless of the size of the Project. Therefore, hydrology and water quality impacts would be similar under Alternative 4.

Land Use and Planning

Similar to the proposed Project, Alternative 4 would be consistent with the Project site's existing General Plan and Zoning Ordinance. Given the substantial similarities in uses between the Project and Alternative 4, Alternative 4 would otherwise not conflict with any plans, policies, or ordinances adopted for the purposes of mitigating or avoiding environmental effects. Therefore, land use and planning impacts would be similar under Alternative 4.

Mineral Resources

Alternative 4 would result in similarities to the proposed Project, since the proposed Project would still be constructed on a site-designated MRZ-3a and would result in the loss of availability of any known mineral resources of unknown significance. However, due to the lack of any known significant mineral resources that would be of value to the region and the residents of the state, the proposed Project and Alternative 4 would result in similar impacts related to the loss of availability of any known mineral resources. The Project site would continue to not be designated for mining by the Town's General Plan or Zoning Ordinance.

Noise

Noise associated with Alternative 4 would occur during short-term construction activities and under long-term operation. The types of construction activities conducted on the Project site would be similar under Alternative 4 would generally cover the same physical area. However, because Alternative 4 would result in construction of less building area on site, it is anticipated that the duration of noise impacts during the building construction and architectural coating phase would decrease under Alternative 4 compared to the Project. Nonetheless, the types of construction equipment used, and the types of construction activities conducted on site would be similar under Alternative 4, and the peak daily noise levels generated during the construction phase would also be similar but for a shorter duration.

Under long-term operational conditions, noise generated by Alternative 4 would primarily be associated with vehicles traveling to and from the site, and on-site vehicle idling, maneuvering, and parking. Alternative 4 would generate fewer daily trips than the Project, and, as such, would contribute less traffic-related noise to local roadways than the Project. However, the decrease in traffic noise associated with Alternative 4 would still be noticeable along the roadway segments impacted by the Project. Therefore, noise impacts would be reduced but similar under Alternative 4.

Public Services

Under Alternative 4, the Project would be constructed and operated as planned on the Project site, with a reduced building size by 50%, equating to the 1,302,223 square feet (approximately 30 acres). Service demand is primarily tied to population, not building size. Alternative 4 would employ approximately half the number of workers, based on employment estimates for warehouse/logistics in San Berardino County and would similarly be consistent with the Town of Apple Valley General Plan. Therefore, impacts to public services would be reduced but similar under Alternative 4.

Transportation

VMT is largely dependent on the specific land use type of a particular project and the location of that project. While a reduction in a Project's size could reduce the overall VMT associated with a given project, reducing a project's square footage would not necessarily have an effect on a project's average trip length. Thus, while under Alternative 4 the Project's development footprint would be reduced by 50% compared to the Project, the average trip length for passenger vehicle and truck trips associated with the Project would essentially remain constant. In addition, because a reduction in Project size would correlate to a similar reduction in on-site workforce, the Project's VMT per employee would also stay relatively the same under Alternative 4 as the Project's VMT per employee. Therefore, transportation impacts with regard to VMT would be similar under Alternative 4.

However, in regard to the Project's less than significant queueing and hazards impacts, even with the reduction in building-square footage and corresponding reduction in trip generation, study intersections would continue to experience queuing issues without required frontage improvements. Improvement measures would still be required for Alternative 4; as such, transportation impacts with regard to queueing and hazards impacts would be similar under Alternative 4.

Utilities and Service Systems

Under Alternative 4, the Project would be constructed and operated as planned on the Project site, with the exception that the size of the proposed development would be reduced by 50%. All other on- and off-site improvements proposed as part of the Project are assumed to still be required under Alternative 4. As such, the same wet and dry utilities would be required, with construction and operational characteristics of these on- and off-site improvements being similar to the Project. Therefore, utilities and service systems impacts would be similar under Alternative 4.

Project Alternative 4 Impact Conclusion

Based on the above, given that Alternative 4 would result in incremental reductions in both construction activity, daily operational trips on Project area roadways, and a reduction in the scale of the proposed buildings, Alternative 4 would result in incremental reductions in the severity of impacts related to aesthetics, air quality, energy, GHG emissions, and noise. In the case of air quality and GHG, the reductions in Project-related trips under Alternative 4 would not be substantial enough to reduce impacts below a significance level that is substantial and unavoidable although emissions would be lessened. Impacts associated with energy and noise are less than significant under both the Project and Alternative 4 scenarios.

Impacts associated with agriculture and forestry resources, biological resources, cultural, tribal cultural, and paleontological resources, geology and soils, hazards, hazardous materials, and wildfire, hydrology and water quality, land use and planning, mineral resources, population and housing, public services, recreation, transportation, and utilities and service systems would generally be the same under Alternative 4 compared to the Project.

All of the same mitigation measures required for the Project would be necessary for Alternative 4, although no new measures would be required. Additionally, Alternative 4 would meet all Project objectives, albeit to a lesser extent as proposed under the Project because of the approximately 50% reduction in the Project's size. In particular, because of its reduced size, Alternative 4 would produce fewer jobs (Objective 2), would generate less tax revenue (Objective 2), would not efficiently develop the land to the highest and best use of the Project site (Objective 5), and would not assist in meeting demand for large-format logistics and warehouse facilities to the same degree as the Project (Objectives 1).

7.4 Environmentally Superior Alternative

Section 15126(e)(2) of the State CEQA Guidelines requires an EIR to identify an "environmentally superior alternative." If the No Project/No Development Alternative is the environmentally superior alternative, the EIR must also identify an environmentally superior alternative from among the other Project alternatives.

Three of the four Project alternatives considered herein would lessen at least one environmental impact relative to the Project. Alternative 2 would not reduce any environmental impact relative to the Project. As previously addressed, if the No Project/No Development Alternative is the environmentally superior alternative; this EIR analysis also evaluates another environmentally superior alternative among the remaining alternatives. Table 7-2 provides a comparison of the Project with the Project alternatives based on the environmental topic areas addressed in Chapter 4 of this EIR. Table 7-3 presents how the Project and each of the Project alternatives compare in terms of meeting the Project objectives.

Table 7-2. Project Alternatives Environmental Impacts Comparison

Environmental Issue	Project	No Project/No Development Alternative (Alternative 1)	Commercial Development Project Alternative (Alternative 2)	EV Charging Station Development Project Alternative (Alternative 3)	Reduced Development Intensity Alternative (Alternative 4)
Aesthetics	Less-than-Significant	Avoided	Similar	Similar but reduced	Similar but reduced
Air Quality	Significant and Unavoidable	Avoided	Similar	Avoided	Lessened, but significant and unavoidable impacts still not avoided
Biological Resources	Less-than-Significant with Mitigation	Avoided	Similar	Similar	Similar
Cultural, Tribal Cultural, and Paleontological Resources	Less-than-Significant with Mitigation	Avoided	Similar	Similar	Similar
Energy	Less-than-Significant	Avoided	Similar	Similar	Lessened
Greenhouse Gas Emissions	Significant and Unavoidable	Avoided	Similar	Avoided	Lessened, but significant and unavoidable impacts still not avoided
Hazards, Hazardous Materials, and Wildfire	Less-than-Significant	Greater	Similar	Similar	Similar
Hydrology and Water Quality	Less-than-Significant	Greater	Similar	Similar	Similar
Land Use and Planning	Less-than-Significant	Similar	Similar	Similar	Similar
Noise	Less-than-Significant	Avoided	Similar	Lessened	Lessened
Public Services	Less-than-Significant	Avoided	Similar	Lessened	Lessened
Transportation and Traffic	Less-than-Significant	Avoided	Similar	Similar	Similar
Utilities and Service Systems	Less-than-Significant	Avoided	Similar	Similar	Similar

Based on a comparison of Alternative 2, Alternative 3, and Alternative 4, significant and unavoidable environmental impacts associated with air quality and GHG emissions would be avoided under Alternative 3, whereas impacts

under Alternatives 2 and 4 would be lessened but not avoided. Impacts to aesthetics, energy, noise, and public services would be lessened under Alternative 3 compared to Alternative 2 and similar compared to Alternative 4. Impacts associated with biological resources; cultural, tribal cultural, and paleontological resources; hazards and hazardous materials; hydrology and water quality; transportation; and utilities and services systems would be similar under Alternative 2, Alternative 3, and Alternative 4 comparatively. Overall, based on these findings, Alternative 3 would be considered the environmentally superior alternative.

Table 7-3. Comparison of Project Alternatives and Project Objectives

Project Objective	Would the Project or alternative meet the Project Objective?				
	Project	No Development Alternative (Alternative 1)	No Project Alternative (Alternative 2)	Electric Vehicle Charging Station Development Project Alternative (Alternative 3)	Reduced Intensity Alternative (Alternative 4)
Objective 1: Develop large-format industrial to stimulate job growth and meet existing demand for large-format industrial buildings in the region.	Yes	No	No	No	Yes, albeit to a lesser degree than the Project
Objective 2: Develop a fiscally sound, jobs-producing, and tax-generating land use in north Apple Valley.	Yes	No	Yes	No	Yes, albeit to a lesser degree than the Project
Objective 3: Implement general plan goals to concentrate nonresidential uses near existing roadways, highways, and freeways in an effort to isolate and reduce any potential environmental impacts related to truck traffic congestion, air emissions, industrial noise, and biological resources to the greatest extent feasible.	Yes	No	Yes	Yes	Yes, albeit to a lesser degree than the Project

Table 7-3. Comparison of Project Alternatives and Project Objectives

Project Objective	Would the Project or alternative meet the Project Objective?				
	Project	No Development Alternative (Alternative 1)	No Project Alternative (Alternative 2)	Electric Vehicle Charging Station Development Project Alternative (Alternative 3)	Reduced Intensity Alternative (Alternative 4)
Objective 4: Create a project that takes advantage of and enhances existing infrastructure, including the proximity to major regional roadways, railroad service corridors, and other similar infrastructure.	Yes	No	Yes	Yes	Yes, albeit to a lesser degree than the Project
Objective 5: Efficiently develop the land to the highest and best allowable land use compatible with the Town's General Plan and Zoning Code.	Yes	No	Yes	No	Yes, albeit to a lesser degree than the Project

7.5 References Cited

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