DRAFT ENVIROMENTAL IMPACT REPORT

Cordova Complex and Quarry at Pawnee Warehouse Project

State Clearinghouse No. 2023090009
May 2024

Town of Apple Valley

Prepared for:

TOWN OF APPLE VALLEY
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Cover Image Source: SKH 2023

PUBLIC DRAFT

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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
ADA	Americans with Disabilities Act
ADMRT	Air Dispersion and Risk Tool
ADT	average daily traffic
AERMOD	American Meteorological Society/Environmental Protection Agency Regulatory Model
AFY	acre-feet per year
amsl	above mean sea level
AMTP	Archaeological Monitoring and Treatment Plan
Amtrak	National Railroad Passenger Corporation
APN	Assessor's Parcel Number
Apple Valley	Town of Apple Valley
ASTM	American Society for Testing and Materials
AVFPD	Apple Valley Fire Protection District
AVMPD	Apple Valley Master Plan of Drainage
Basin	Upper Mojave River Valley Groundwater Basin
BenMAP	EPA Benefits Mapping and Analysis Program
BenMAP	EPA Benefits Mapping and Analysis Program – Community Edition
BLM	Bureau of Land Management
BMPs	best management practices
BUG	backlight, uplight, and glares
Burrtec	Burrtec Waste Industries, Inc.
CAAQS	California Ambient Air Quality Standards
CAL FIRE	California Department of Forestry and Fire Protection
Cal/OSHA	California Occupational Safety and Health Administration
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CAFE	corporate average fuel economy
CALGreen	California Green Building Standards
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CAMx	Comprehensive Air Quality Model with extensions
CAP	Climate Action Plan
CARB	California Air Resources Board
CBC	California Building Code
CCAEJ	Center for Community Action and Environmental Justice
CCR	California Code of Regulations

Acronym/ Abbreviation	Definition
CDFW	California Department of Fish and Wildlife
CDNPA	California Desert Native Plants Act
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CESA	California Endangered Species Act
CFC	chlorofluorocarbon
CFR	Code of Federal Regulations
CH_4	methane
CHP	California Highway Patrol
CHRIS	California Historical Resources Information System
CIP	Capital Improvement Plan
CIWM	California Integrated Waste Management
CMAC	Community Multiscale Air Quality model
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
CO_2e	carbon dioxide equivalent
COA	Condition of Approval
County	County of San Bernardino
CRHR	California Register of Historical Resources
CRMP	Cultural Resource Management Plan
CRPR	California Rare Plant Rank
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
dB	decibels
dBA	A-weighted decibels
DEC	Dipodomys Ecological Consulting LLC
DOJ	Department of Justice
DPM	diesel particulate matter
DTSC	Department of Toxic Substances Control
DWR	Department of Water Resources
EDR	Environmental Database Reports
EIA	Energy Information Administration
EISA	Energy Independence and Security Act
EIR	environmental impact report
EMFAC	EMission FACtor
EO	Executive Order

Acronym/ Abbreviation	Definition
EOP	Emergency Operations Plan
EPA	U.S. Environmental Protection Agency
ESA	Environmental Site Assessment
ESCP	Erosion and Sediment Control Plan
ESFR	Early Suppression, Fast Response
EV	electric vehicle
FAR	floor area ratio
Farmland	Prime Farmland, Unique Farmland, or Farmland of Statewide Importance
FEMA	Federal Emergency Management Agency
FESA	federal Endangered Species Act
FHSZ	fire hazard severity zone
FHWA	Federal Highway Administration
FICON	Federal Interagency Committee on Noise
FIRM	Flood Insurance Rate Map
FR	*Federal Register*
gfa	gross floor area
GHG	greenhouse gas
GIS	geographic information system
GLA	Glenn Lukos Associates
GSA	Groundwater Sustainability Agency
GSP	Groundwater Sustainability Plan
GW	gigawatts
GWP	global warming potential
HAP	hazardous air pollutant
HARP2	Hotspots Analysis and Reporting Program Version 2
HCFC	hydrochlorofluorocarbon
HCP	Habitat Conservation Plan
HEPA	high-efficiency particulate air
HFC	hydrofluorocarbon
HHDT	heavy-heavy duty truck
HIA	health impact assessment
HMBP	hazardous materials business plan
HMMP	Habitat Mitigation and Monitoring Plan
hp	horsepower
HRA	health risk assessment
HVAC	heating, ventilation, and air conditioning
Hz	hertz
I-15	Interstate 15
I-G	General Industrial land use designation
I-SP	Specific Plan Industrial land use designation
IEPR	Integrated Energy Policy Report
IESNA	Illuminating Engineering Society of North America
IPCC	Intergovernmental Panel on Climate Change

Acronym/ Abbreviation	Definition
ips	inches per second
IS	initial study
ISO	Independent System Operator
ITE	Institute of Transportation Engineers
ITP	Incidental Take Permit
KDAG	Barstow-Daggett Airport air monitoring station
kW	kilowatt
L_{dn}	day–night average noise level
LEED	Leadership in Energy and Environmental Design
L_{eq}	equivalent noise level
LEV	low-emission vehicle
LHDT	light-heavy duty truck
LHMP	Local Hazard Mitigation Plan
LID	low-impact development
L_{max}	maximum sound level
L_n	statistical sound level
LOS	level of service
LRA	local responsibility area
LZ	lighting zone
MBTA	Migratory Bird Treaty Act
MDAB	Mojave Desert Air Basin
MDAQMD	Mojave Desert Air Quality Management District
MEIR	Maximally Exposed Individual Resident
mgd	million gallons per day
MHDT	medium-heavy duty truck
MLD	most likely descendant
MM	mitigation measure
MMT	million metric tons
MND	mitigated negative declaration
Mojave Basin	Upper Mojave River Valley Groundwater Basin
Mojave River Basin	Upper Mojave River Valley Groundwater Basin
MPO	Metropolitan Planning Organization
MS4	Municipal Separate Storm Sewer System
MT	metric tons
MTBE	methyl tertiary butyl ether
mya	million years ago
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NAVISP	North Apple Valley Industrial Specific Plan
NCCP	Natural Community Conservation Plan
NF_3	nitrogen trifluoride

Acronym/ Abbreviation	Definition
NHTSA	National Highway Traffic Safety Administration
NIMS	National Incident Response Management System
NO	nitric oxide
NO_2	nitrogen dioxide
NOA	notice of availability
NOC	notice of completion
NOP	notice of preparation
NO_x	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
O_2	oxygen
O_3	ozone
OD	Origin/Destination
OEHHA	Office of Environmental Health Hazard Assessment
OPR	Governor's Office of Planning and Research
Pb	leads
PCE	passenger car equivalent
PDF	Project Design Feature
PFC	perfluorocarbon
PGM	photochemical grid model
PM	particulate matter
$PM_{2.5}$	fine particulate matter (aerodynamic diameter less than or equal to 2.5 microns)
PM_{10}	coarse particulate matter (aerodynamic diameter less than or equal to 10 microns)
ppm	parts per million
PPV	peak particle velocity
PRC	Public Resources Code
PRIMP	Paleontological Resources Impact Mitigation Program
Project	Cordova Complex and Quarry at Pawnee Warehouse Project
PSD	Prevention of Significant Deterioration
RCNM	Roadway Construction Noise Model
RCRA	Resource Conservation and Recovery Act
REL	reference exposure level
RFS	Renewable Fuel Standard
RMP	Risk Management Plan
ROG	reactive organic gas
ROW	right-of-way
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
RWWTP	Regional Wastewater Treatment Plant
SAFE	Safer Affordable Fuel-Efficient
SANBAG	San Bernardino Associated Governments
SARA	Superfund Amendment and Reauthorization Act

Acronym/ Abbreviation	Definition
SB	Senate Bill
SBCFD	San Bernardino County Fire Department
SBCM	San Bernardino County Museum
SBCTA	San Bernardino County Transportation Authority
SBTAM	San Bernardino Transportation Analysis Model
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCCIC	South Central Coast Information Center
SCS	Sustainable Communities Strategy
SCE	Southern California Edison
SEMS	Standardized Emergency Management System
sf	square feet
SF_6	sulfur hexafluoride
SGMA	Sustainable Groundwater Management Act
SJVAPCD	San Joaquin Valley Air Pollution Control District
SLCP	short-lived climate pollutant
SLF	Sacred Lands File
SO_2	sulfur dioxide
Southwest Gas	Southwest Gas Holdings, Inc.
SP	Specific Plan
SR	State Route
SRA	state responsibility area
STAA	Surface Transportation Assistance Act
SVP	Society of Vertebrate Paleontology
SWMP	Stormwater Management Program
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
TAZ	traffic analysis zone
TDM	transportation demand management
TMDL	total maximum daily load
TNM	Traffic Noise Model
Town	Town of Apple Valley
TPA	transit priority area
U.S.C.	United States Code
UNFCCC	United Nations Framework Convention on Climate Change
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
UWMP	Urban Water Management Plan
Vdb	decibel notation
VMT	vehicle miles traveled
VOC	volatile organic compound

Acronym/ Abbreviation	Definition
VVTA	Victor Valley Transit Authority
VVWRA	Victor Valley Wastewater Reclamation Authority
WEAP	Worker Environmental Awareness Program
WJTCA	Western Joshua Tree Conservation Act
WQMP	Water Quality Management Plan
WSA	water supply assessment
ZEV	zero-emission vehicle

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1 Executive Summary

1.1 Introduction

This environmental impact report (EIR) evaluates the potential environmental impacts associated with implementation of the Cordova Complex and Quarry at Pawnee Warehouse Project (Project). This EIR has been prepared by the Town of Apple Valley (Apple Valley or Town) as lead agency pursuant to the California Environmental Quality Act (CEQA), codified as California Public Resources Code Section 21000 et seq., and the CEQA Guidelines in the California Code of Regulations (CCR), Title 14, Section 15000 et seq. Pursuant to CEQA Guidelines Section 15367 this EIR provides the public and responsible agencies information about the potential adverse impacts on the environment associated with implementation 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 an informational document designed to provide to local and state governmental agency decision makers and the public an analysis of potential environmental consequences of a project to support informed decision making.

This chapter provides a brief synopsis of the Project, results of the environmental analysis contained within this EIR, alternatives to the Project that were considered, and major areas of controversy and issues to be resolved by decision-makers. Effects that were found not to be significant, and therefore are not further analyzed in this EIR, are also described. This chapter does not contain the extensive background and analysis found throughout the individual sections within Chapter 4 of this EIR. Therefore, the reader should review the entire document to fully understand the Project and its environmental effects.

1.2 Project Location

The approximately 163-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 includes two noncontiguous sites: the Cordova Complex site, and the Quarry at Pawnee site located within the Town's adopted North Apple Valley Industrial Specific Plan (NAVISP). The approximately 87-acre Cordova Complex site is bounded by Cordova Road to the north, Navajo Road to the east, Doberman Street and undeveloped land to the south, and Dachshund Avenue to the west. The Cordova Complex site is comprised of 10 parcels (Assessor's Parcel Numbers [APNs] 0463-213-05, 06, 07, 08, 09, 16, 33, 34, 35, and 36). The approximately 76-acre Quarry at Pawnee site is bounded by Quarry Road to the north, Flint Road to the east, Cordova Road to the south, and an unnamed road to the west. The Quarry at Pawnee site is located approximately 1,400 feet to the northeast of the Cordova Complex site. The Quarry at Pawnee site is comprised of four parcels (APNs 0463-214-06, 07, 08, and 09). Regional access to the Project site is provided via Interstate 15, located approximately 2.5 miles west of the Project site.

1.3 Project Description

The Project includes the construction and operation of two new warehouse buildings totaling approximately 3,022,294 square feet (sf), located on approximately 163 acres of vacant land in Apple Valley (the approximately 87-acre Cordova Complex site and approximately 76-acre Quarry at Pawnee site). The Cordova Complex warehouse building would be 1,559,952 sf and would include a total of 266 loading dock doors, with 133 loading dock doors along the northern warehouse façade and 133 loading dock doors along the southern façade. The Quarry at Pawnee warehouse building would be slightly smaller at 1,462,342 sf and would include a total of 235 loading dock doors with 118 loading dock doors along the eastern warehouse façade with an additional 117 loading dock doors along the western façade. The Project would involve associated on-site improvements, including truck and vehicle parking, on-site stormwater detention basins, and landscaped areas. The Project would also include off-site roadway improvements, including widening and paving of roadways used to access the Project site, as well as installation of or upsizing of water and sewer lines in the immediate vicinity of the Project site.

The Project would operate as a high-pile[1] storage warehouse for the storage and distribution of manufactured goods/materials with ancillary office uses. No refrigeration for cold storage is assumed. Tenants of the Project have not yet been identified, but Project operation is estimated to require approximately 1,469 employees. Business operations would be expected to be conducted primarily within the warehouse buildings, with the exception of ingress and egress of trucks and passenger vehicles accessing the site; passenger and truck parking; 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. It is anticipated that the facilities would be operated 24 hours a day, 7 days a week.

See Chapter 3, Project Description, for a more detailed overview of the Project.

1.4 Project Objectives

The objectives for the Project are as follows:

1. Develop a project within the North Apple Valley Industrial Specific Plan area to meet the existing and growing demand for large-format logistics and warehouse buildings in the region.
2. Develop a fiscally sound, jobs-producing, and tax-generating land use in north Apple Valley.
3. 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 pollutant emissions, industrial noise, and biological resources to the greatest extent feasible.
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.
5. Implement the development patterns envisioned in the North Apple Valley Industrial Specific Plan.

[1] High pile refers to storage of products on pallets, racks or shelves that are 12 feet or greater in height.

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 requested entitlements include:

Discretionary Approvals

Planning Commission

- **Site Plan Review.** Project implementation would require processing of Site Plan Reviews for each site in order to ensure compliance with all Municipal Code regulations and requirements for Project design. The Planning Commission will consider approval of the Site Plan Review applications.
- **Tentative Parcel Maps.** Project implementation would require processing of separate Tentative Parcel Maps to reorganize and consolidate each site to accommodate a single building on each site. The Planning Commission will consider approval of the Tentative Parcel Maps.
- **Consider Certification of EIR.** The Planning Commission will certify or reject this EIR, along with appropriate CEQA Findings and the mitigation monitoring and reporting program.

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. These additional approvals may include approvals such as a site-specific Stormwater Pollution Prevention Plan.

1.6 Summary of Impacts

Table 1-1 provides a complete list of the Project's environmental impacts, including the level of significance before and after mitigation, based on the analysis and conclusions presented in Chapter 4, Environmental Analysis. A list of Project impact thresholds determined to have no impacts or less-than-significant impacts in the Initial Study (Appendix A) and not carried forward for further analysis in this EIR but are included at the end of the table. This EIR identified significant and unavoidable impacts related to air quality, greenhouse gas (GHG) emissions, and noise.

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measures	Level of Significance After Mitigation
Aesthetics			
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 measures required.	Less-than-Significant Impact
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 measures required.	Less-than-Significant Impact
Would the Project result in cumulatively considerable impacts related to aesthetics?	Less-than-Significant Impact	No mitigation measures required.	Less-than-Significant Impact
Air Quality			
Would the Project conflict with or obstruct implementation of the applicable air quality plan?	Potentially Significant Impact	No feasible mitigation measures available.	Significant and Unavoidable Impact
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 Impact	No feasible mitigation measures available.	Significant and Unavoidable Impact
Would the Project expose sensitive receptors to substantial pollutant concentrations?	Potentially Significant Impact	No feasible mitigation measures available.	Significant and Unavoidable Impact
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 measures required.	Less-than-Significant Impact

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measures	Level of Significance After Mitigation
Would the Project result in cumulatively considerable impacts related to air quality?	Potentially Significant Impact	No feasible mitigation measures available.	Significant and Unavoidable Impact
Biological Resources			
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?	Potentially Significant Impact	**MM BIO-1: Conservation of Western Joshua Trees.** Mitigation for direct impacts to 11 western Joshua trees one meter or greater but less than five meters in height, and 3 trees less than one meter in height shall 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 fee schedule, the Project Applicant shall pay $1,000 for each western Joshua tree five meters or greater in height, and $200 for each western Joshua tree less than five meters in height. Fees collected will be deposited into the Western Joshua Tree Conservation Fund for appropriation to the California Department of Fish and Wildlife. **MM BIO-2: Conservation of Desert Native Plants.** Pursuant to Town of Apple Valley Municipal Code Chapter 9.76, prior to the grading permit, the Project Applicant shall submit an application to the Town for removal or relocation of protected native desert plants protected under the Town's 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	Less-than-Significant Impact

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measures	Level of Significance After Mitigation
		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.** In accordance with Section 1927.3 of The Western Joshua Tree Conservation Act obtained for the take of western Joshua tree a designated biologist retained by the Project Applicant or construction contractor shall be on site during all site disturbing activities and	

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measures	Level of Significance After Mitigation
		shall have authority to immediately stop any activity that does not comply with the biological resource mitigation measures (included in this EIR) and/or to order any reasonable measure to avoid the unauthorized take of an individual western Joshua tree. **MM BIO-4: Compliance Monitoring.** During site-disturbing activities a designated biologist retained by the Project Applicant or construction contractor shall be on site daily and 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 these areas remain protected during site disturbing activities (see MM BIO-3). Weekly written observation and inspection records that summarize oversight activities and compliance inspections and monitoring activities required by the Incidental Take Permit, if required, shall be prepared by the designated biologist and provided to the California Department of Fish and Wildlife. **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 any ground disturbing activities. The WEAP shall consist of a presentation from a designated biologist retained by the Project Applicant or construction contractor that includes a discussion of the biology and status of protected or special-status plant and animal species including: western Joshua trees, Mohave desert tortoise, burrowing owls, LeConte's thrasher, Bendire's thrasher, loggerhead shrike, American badger, and desert kit fox. Interpretation for non-English-speaking workers shall be provided, and the same instructions shall be provided to all new workers before they are authorized to perform work in the Project area. Upon completion of the WEAP,	

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measures	Level of Significance After Mitigation
		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 shall be conducting work in the Project area. **MM BIO-6: Construction Monitoring Notebook.** The designated biologist (see MM BIO-3) 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 WEAP education program. The Project contractor shall ensure that a copy of the construction monitoring notebook is available for review at the Project site upon request by Town staff, the California Department of Fish and Wildlife, or any agency with jurisdiction. **MM BIO-7: Delineation of Property Boundaries.** Prior to commencing ground disturbing activities, the Project contractor shall, in consultation with the designated biologist, clearly delineate the boundaries around the entire Project footprint with fencing, stakes, or flags, consistent with the grading plan. All fencing, stakes, and flags shall be maintained until the completion of site disturbing activities in that area. **MM BIO-8: Mitigation for Indirect Impacts.** The following measures shall be required to avoid/minimize potential indirect impacts to biological resources, including aquatic resources and special-status plant and animal species that may occur outside of the Project boundary. ▪ Invasive, non-native plant species listed on the California Invasive Plant Council's Inventory of Invasive Plants (https://www.cal-ipc.org/plants/inventory/) shall not be incorporated in the landscape plans for the Project for areas within 100 feet of undeveloped areas.	

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measures	Level of Significance After Mitigation
		▪ Fully covered trash receptacles that are animal-proof shall be installed and used by construction personnel 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 trash and construction materials. All construction/ contractor personnel shall collect all litter and food waste from the Project site on a daily basis and dispose of such materials in covered trash receptacles. Vehicle fluids and other hazardous waste shall be disposed of in compliance with all applicable federal, state, and local agencies and regulations as described in Section 4.7, Hazards and Hazardous Materials, of this EIR. **MM BIO-9: Pre-Construction Burrowing Owl Survey.** A qualified biologist retained by the Project Applicant or construction contractor shall conduct two pre-construction presence/ absence surveys for burrowing owls, one no less than 14 days prior to site disturbance, and one within 24 hours of site ground-disturbing activities (e.g., disking, vegetation clearing, clearing and grubbing, equipment staging, etc.) to ensure that no owls have colonized the site in the days or weeks preceding the ground-disturbing activities. Surveys for burrowing owl shall be conducted in accordance with protocols established in the California Department of Fish and Wildlife's (CDFW's) 2012 (or most recent version) Staff Report on Burrowing Owl Mitigation. If burrowing owls are not detected during the pre-construction take avoidance surveys, then no additional action is required. If burrowing owls are detected, a Burrowing Owl Relocation and Protection Plan shall be prepared and implemented for the Project. The Burrowing Owl Relocation Plan shall require that	

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measures	Level of Significance After Mitigation
		disturbance to burrows 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 approved by CDFW shall be implemented by a qualified biologist approved to conduct relocation. 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 pre-construction survey, mitigation for direct impacts to 198.4 acres shall be fulfilled through conservation of suitable burrowing owl habitat through the purchase of credits at a minimum of 1:1 in-kind	

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measures	Level of Significance After Mitigation
		habitat replacement of equal or better functions and values to those impacted by the Project, for a total of 198.4 acres. **MM BIO-10: Pre-Disturbance Desert Tortoise Clearance Survey.** A qualified biologist retained by the Project Applicant or construction contractor shall conduct pre-disturbance desert tortoise clearance surveys within three days of site ground-disturbing activities (e.g., disking, vegetation clearing, clearing and grubbing, equipment staging, etc.) in accordance with current U.S. Fish and Wildlife Service (USFWS) protocol to reevaluate locations of potential Mojave desert tortoise burrows within the Project limits so take of Mojave desert tortoise can be avoided. If no Mojave desert tortoises are found during the pre-disturbance desert tortoise clearance survey, then no additional action or mitigation is required. Should Mojave desert tortoise be located during the clearance survey, USFWS shall be contacted and all work shall cease until further direction from the USFWS is provided. 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 biological opinion 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 biological opinion or 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 biological opinion or Incidental Take Permit.	

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measures	Level of Significance After Mitigation
		Should Mojave desert tortoise be located during the clearance survey, the Project would result in the loss of 198.4 acres of suitable habitat for Mojave desert tortoise. Mitigation for direct impacts to 198.4 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 198.4 acres or as otherwise determined through coordination with the USFWS and/or California Department of Fish and Wildlife. **MM BIO-11: Pre-Construction Nesting Bird Survey.** If possible, vegetation clearing shall be conducted outside of the nesting season, which is generally identified as February 1 through August 31. If avoidance of the nesting season is not feasible, then a qualified biologist shall conduct a pre-construction nesting bird survey within seven days prior to any disturbance of the site, including disking, vegetation clearing, clearing and grubbing, equipment staging, etc. If active nests are identified during the pre-construction nesting bird survey, the biologist shall establish suitable buffers around the nests, and the buffer areas shall be avoided until the nests are no longer occupied and the juvenile birds can survive independently from the nests. Suitable buffers 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). **MM BIO-12: Pre-Disturbance American Badger and Desert Kit Fox Clearance Survey.** A qualified biologist shall conduct pre-disturbance clearance surveys for the American badger and/or desert kit fox within seven days of ground-disturbing activities (e.g., disking, vegetation clearing, clearing and grubbing, equipment staging, etc.). If the American badger and/or desert kit fox are not detected during the pre-disturbance clearance	

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measures	Level of Significance After Mitigation
		survey, then no additional action or mitigation is required. If the American badger and/or desert kit fox are detected on site in an active den, then the Project Applicant shall be required to contact CDFW prior to conducting any Project-associated ground-disturbing activities and prepare and implement a relocation plan to avoid/minimize impacts to these species. An avoidance buffer of 300 feet shall be implemented around any active dens until the den is determined to be inactive.	
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 Impact	**MM BIO-3**, **MM BIO-4**, **MM BIO-5**, **MM BIO-6**, **MM BIO-7**, **MM BIO-8** (listed above)	Less-than-Significant Impact
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 Impact	**MM BIO-3**, **MM BIO-4**, **MM BIO-5**, **MM BIO-6**, **MM BIO-7**, **MM BIO-8** (listed above) **MM BIO-13: Jurisdictional Waters.** The Project site supports 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 site disturbing activities, the Project 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 Project 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 minimum 1:1 with purchase of credits (1.63 acres RWQCB jurisdiction and 1.63 acres CDFW jurisdiction) for impacts to aquatic resources as part of an overall strategy to	Less-than-Significant Impact

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measures	Level of Significance After Mitigation
		ensure no net loss. Mitigation shall be completed through use of a mitigation bank (e.g., West Mojave Mitigation Bank) or other Applicant-sponsored mitigation (such as restoration, preservation or enhancement of on-site or off-site resources). 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.	

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measures	Level of Significance After Mitigation
		▪ 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.	
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	No mitigation measures required.	Less-than-Significant Impact
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** and **MM BIO-2** (listed above)	Less-than-Significant Impact
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	No mitigation measures required.	Less-than-Significant Impact
Would the Project result in cumulatively considerable impacts related to biological resources?	Potentially Significant Impact	**MM BIO-1** through **MM BIO-13** (listed above)	Less-than-Significant Impact
Cultural, Tribal Cultural, and Paleontological Resources			
Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	Potentially Significant Impact	**MM CUL-1: Workers Environmental Awareness Program (WEAP) and Cultural Resource Sensitivity Training.** Prior to any ground-disturbing activities (including, but not limited to, clearing, grubbing, tree and bush removal, grading, trenching, fence post	Less-than-Significant Impact

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measures	Level of Significance After Mitigation
		replacement and removal, construction excavation, excavation for all utility and irrigation lines, and landscaping phases of any kind), and prior to the issuance of grading permits, the Applicant or contractor shall retain a qualified archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards. The archaeologist shall conduct a Workers Environmental Awareness Program (WEAP) and Cultural Resource Sensitivity Training for all construction personnel and monitors who are not trained archaeologists. In attendance shall be the consulting Tribe(s) Tribal Historic Preservation Officer, and/or designated Tribal Representative. The training session shall focus on the archaeological and tribal cultural resources that may be encountered during ground-disturbing activities as well as the procedures to be followed in the event of an unanticipated discovery. A basic presentation shall be prepared and presented by the 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.	

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measures	Level of Significance After Mitigation
		MM CUL-2: Archaeological and Native American Construction Monitoring. Prior to the issuance of grading permits, the Applicant shall retain a qualified archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards and enter into a Tribal Monitoring Agreement with the consulting Tribe(s) for the Project. The qualified archaeological and Tribal Monitor(s) shall be on site during all ground-disturbing activities (including, but not limited to, clearing, grubbing, tree and bush removal, grading, trenching, fence post placement and removal, construction excavation, excavation for all utility and irrigation lines, and landscaping phases of any kind). The Tribal Monitor(s) shall have the authority to temporarily divert, redirect, or halt the ground-disturbing activities to allow identification, evaluation, and potential recovery of cultural resources and/or tribal cultural resources. The qualified archaeologist, in consultation with the Tribal Monitor(s), shall be responsible for determining the duration and frequency of monitoring, and 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 frequency of inspections shall depend on the rate of excavation, the materials excavated, and any discoveries of Tribal Cultural Resources as defined in California Public Resources Code Section 21074. Archaeological and Native American monitoring shall be discontinued when the depth of grading and the soil conditions no longer retain the potential to contain 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 South Central Coast Information Center with the results of the cultural monitoring program.	

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measures	Level of Significance After Mitigation
		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 will be necessary.	
Would the Project disturb any human remains, including those interred outside of dedicated cemeteries?	Less-than-Significant Impact	No mitigation measures required.	Less-than-Significant Impact
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)?	Potentially Significant Impact	**MM TCR-1: Cultural Resources Monitoring and Treatment Plan.** Prior to any ground-disturbing activities the Project archaeologist shall develop a Cultural Resources Monitoring and Treatment Plan (Plan) to address the details, timing, and responsibilities of all archaeological and cultural resource activities that occur on the Project site. This Plan shall be written in consultation with the consulting Tribe(s) and shall include the following: approved Mitigation Measures (MM)/Conditions of Approval (COA), contact information for all pertinent parties, parties' responsibilities, procedures for each MM or COA, and an overview of the Project construction schedule.	Less-than-Significant Impact

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measures	Level of Significance After Mitigation
		In the event that cultural resources are discovered during Project activities, all work shall follow protocols outlined under MM CUL-3 (Inadvertent Discovery of Archaeological Resources). 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 (Archaeological and Native American Construction Monitoring), makes his/her 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, the Cultural Resources Monitoring and Treatment Plan, created by the qualified archaeologist in coordination with the consulting Tribe(s), shall be followed and all subsequent discoveries shall be subject to this Plan. 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: Consultation with Consulting Tribes.** Any and all archaeological/cultural documents created as a part of the Project (isolate records, site records, survey reports, testing reports, etc.) shall be supplied to the applicant and lead agency for dissemination to consulting Tribe(s). The lead agency and/or applicant shall, in good faith, consult with the consulting Tribe(s) throughout the life of the Project. **MM TCR-3: Pre-Grade Meeting.** The retained qualified archaeologist and consulting Tribe(s) representative shall attend the pre-grade meeting with the grading contractors to explain and coordinate the requirements of the monitoring plan (in conjunction with the training held under MM CUL-1 (Workers Environmental Awareness Program [WEAP] and Cultural Resource Sensitivity Training).	

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measures	Level of Significance After Mitigation
		MM TCR-4: Inadvertent Discovery of Tribal Cultural Resources. In the event that previously unidentified tribal cultural resources are unearthed during construction, the qualified archaeologist and the Tribal Monitor(s) shall have the authority to temporarily divert and/or temporarily halt ground-disturbance operations in the area of discovery to allow for the evaluation of potentially significant cultural resources. Isolates and clearly non-significant deposits shall be minimally documented in the field and collected so the monitored grading can proceed. This measure is in conjunction with mitigation measure MM CUL-3 (Inadvertent Discovery of Archaeological Resources). If a potentially significant tribal cultural resource(s) is discovered, work shall stop within a 60-foot perimeter of the discovery and an Environmentally Sensitive Area physical demarcation/barrier constructed. All work shall be diverted away from the vicinity of the find, so that the find can be evaluated by the qualified archaeologist and Tribal Monitor[s]. The archaeologist shall notify the lead agency and consulting Tribe(s) of said discovery. The qualified archaeologist, in consultation with the lead agency, the consulting Tribe(s), and the Native American monitor, shall determine the significance of the discovered resource. A recommendation for the treatment and disposition of the Tribal Cultural Resource shall be made by the qualified archaeologist in consultation with the Tribe[s] and the Native American monitor[s] and be submitted to the lead agency for review and approval. Below are the possible treatments and dispositions of significant cultural resources in order of CEQA preference: A. Full avoidance. B. If avoidance is not feasible, Preservation in place.	

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measures	Level of Significance After Mitigation
		If Preservation in place is not feasible, all items shall be reburied in an area away from any future impacts and reside in a permanent conservation easement or Deed Restriction. C. If all other options are proven to be infeasible, data recovery through excavation and then curation in a Curation Facility that meets the Federal Curation Standards (36 CFR 79). **MM TCR-5: Inadvertent Discovery of Native American Human Remains.** The following specific conditions to be imposed in order to protect Native American human remains and/or cremations. No photographs are to be taken except by the coroner, with written approval by the consulting Tribe(s). A. Should human remains, cremations, and/or funerary objects be encountered on the surface or during any and all ground-disturbing activities (i.e., clearing, grubbing, tree and bush removal, grading, trenching, fence post placement and removal, construction excavation, excavation for all water supply, electrical, and irrigation lines, and landscaping phases of any kind), work in the immediate vicinity of the discovery shall immediately stop within a 100-foot perimeter of the discovery. The area shall be protected by the establishment of an Environmentally Sensitive Area with a marked boundary. Project personnel/observers shall be restricted from entry into the Environmentally Sensitive Area. The County Coroner shall be contacted within 24 hours of discovery. The County Coroner has 48 hours to make his/her determination pursuant to State and Safety Code Section 7050.5 and Public Resources Code (PRC) Section 5097.98. B. In the event that the human remains and/or cremations are identified as Native American, the Coroner shall notify the Native American Heritage Commission within 24 hours of determination pursuant to subdivision (c) of HSC Section 7050.5.	

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measures	Level of Significance After Mitigation
		C. The Native American Heritage Commission shall immediately notify the person or persons it believes to be the Most Likely Descendant (MLD). The MLD has 48 hours, upon being granted access to the Project site, to inspect the site of discovery and make his/her recommendation for final treatment and disposition, with appropriate dignity, of the remains and all associated grave goods pursuant to PRC Section 5097.98. D. Once the MLD has been named, the Tribe may wish to rebury the human remains and/or cremation and sacred items in their place of discovery with no further disturbance where they will reside in perpetuity. The place(s) of reburial shall not be disclosed by any party and is exempt from the California Public Records Act (California Government Code Section 6254[r]). Reburial location of human remains and/or cremations shall be determined by the Tribe's MLD, the landowner, and the Town Planning Department. **MM TCR-6: Final Report.** The final report(s) created as a part of the Project (Cultural Resources Monitoring and Treatment Plan, isolate records, site records, survey reports, testing reports, etc.) shall be submitted to the lead agency and consulting Tribe(s) for review and comment. After approval of all parties, the final reports shall be submitted to the South Central Coast Information Center and the consulting Tribe(s).	
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	Potentially Significant Impact	**MM CUL-3, MM TCR-1**, **MM TCR-2**, and **MM TCR-3** (listed above)	Less-than-Significant Impact

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measures	Level of Significance After Mitigation
discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivisi©(c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdiv©on (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.			
Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Potentially Significant Impact	**MM GEO-1: Paleontological Resources.** The Project Applicant or proponent shall implement the following measures to protect paleontological resources. ▪ **Paleontological Resources Impact Mitigation Program.** Prior to commencement of any grading activity on site, the Project Applicant or proponent shall retain a Qualified Paleontologist to per the Society of Vertebrate Paleontology (SVP) (2010) guidelines. The Qualified Paleontologist shall prepare and implement a Paleontological Resources Impact Mitigation Program (PRIMP) for the Project. The PRIMP shall be consistent with the SVP (2010) guidelines and should outline requirements for preconstruction meeting attendance and worker environmental awareness training, where monitoring is required within the proposed Project site based on construction plans and/or geotechnical reports, procedures for adequate paleontological monitoring and discoveries treatment, and paleontological methods (including sediment sampling for microvertebrate fossils), reporting, and collections management. The qualified paleontologist shall attend the preconstruction meeting and a qualified paleontological monitor shall be on site during all rough grading and other significant ground-disturbing activities (including augering) in previously undisturbed, fine-grained Pleistocene alluvial deposits.	Less-than-Significant Impact

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measures	Level of Significance After Mitigation
		▪ **Construction Worker Paleontological Resources Sensitivity Training.** Prior to the commencement of Project ground-disturbing activities, a Qualified Paleontologist shall present a paleontological resources sensitivity training (or may be provided via digital recording) to project construction personnel. The paleontologist shall inform construction personnel about the laws protecting paleontological resources; the types of paleontological resources that could be encountered; the proper procedures to follow in the event of a paleontological discovery; and safety precautions to be taken when working with paleontological monitors. The Project Applicant shall provide the training agenda, materials, and attendance records to the Town within 5 business days of any request. ▪ **Paleontological Monitoring.** During grading and excavation activities, a qualified Paleontological Monitor shall be present to monitor the earth-moving activities in accordance with the Project paleontological assessment report or the PRIMP. Should paleontological resources be encountered, the Paleontological Monitor shall have the authority to halt ground-disturbing activities; and immediately notify the Qualified Paleontologist of the find; and inspect, document, and salvage the find as necessary. The Qualified Paleontologist shall prepare and submit a final report summarizing monitoring results to the Town and the San Bernardino County Museum. ▪ **Paleontological Resources Recovery Plan.** If paleontological resources are discovered during earthmoving activities, the Qualified Paleontologist meeting Society of Vertebrate Paleontology (SVP 2010) standards shall prepare and submit a Paleontological Resources Recovery Plan (PRRP) to the Town for review and approval. The recovery plan shall include, but is not limited to, sampling and fossil recovery	

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measures	Level of Significance After Mitigation
		procedures, museum curation for any scientifically significant specimen recovered, and a report of findings. Recommendations in the recovery plan as approved by the County shall be implemented before construction activities can resume at the site where the paleontological resources were discovered. All reports and plans resulting from implementation of this measure shall be submitted to the Town and filed with the San Bernardino County Museum. ▪ **Paleontological Resources Discoveries Protocols.** If fossils are discovered during earthmoving activities, the Paleontological Monitor shall be authorized to halt the ground-disturbing activities within an appropriate buffer area determined by the Paleontological Monitor. The paleontologist shall implement the PRIMP and oversee the collection of sediment samples and exposed fossils for processing and evaluation. Any fossils encountered and recovered shall be prepared to the point of identification, catalogued, and curated at a public, nonprofit institution with a research interest in the material and with retrievable storage, such as the San Bernardino County Museum, if such an institution agrees to accept the fossils. Accompanying notes, maps, and photographs shall also be filed at the repository. All costs for lab work and curation fees are the responsibility of the project proponent or applicant. If no institution accepts the fossil collection, it may be donated to a local school or other interested organization in the area for educational purposes. The paleontologist shall prepare a final report on the collected fossils. The report shall contain an appropriate description of the fossils, treatment, and curation. A copy of the report shall be filed with the Town and the San Bernardino County Museum along with field notes and any other supporting documentation.	

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measures	Level of Significance After Mitigation
Would the Project result in cumulatively considerable impacts related to cultural, tribal cultural, or paleontological resources?	Potentially Significant Impact	**MM CUL-1** through **MM CUL-3**, **MM TCR-1** through **MM TCR-6**, **MM GEO-1**	Less-than-Significant Impact
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 Impact	No mitigation measures required.	Less-than-Significant Impact
Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	Less-than-Significant Impact	No mitigation measures required.	Less-than-Significant Impact
Would the Project result in cumulatively considerable impacts related to energy?	Less-than-Significant Impact	No mitigation measures required.	Less-than-Significant Impact
Greenhouse Gas Emissions			
Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Potentially Significant Impact	**MM GHG-1: Renewable Energy Plan**. Future tenants of the Project shall be required to subscribe to the Apple Valley Choice Energy 100% Renewable Energy Plan, which is 100% renewable and 100% carbon-free, for the duration of occupancy as part of the entitlement agreement. At each lease or change of building ownership, the new lessee or owner shall also be automatically enrolled in the Apple Valley Choice Energy 100% Renewable Energy Plan.	Significant and Unavoidable Impact
Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Potentially Significant Impact	**MM GHG-1** (listed above)	Significant and Unavoidable Impact
Would the Project result in cumulatively considerable impacts related to greenhouse gas emissions?	Potentially Significant Impact	**MM GHG-1** (listed above)	Significant and Unavoidable Impact

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measures	Level of Significance After Mitigation
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 hazardous materials?	Less-than-Significant Impact	No mitigation measures required.	Less-than-Significant Impact
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	No mitigation measures required.	Less-than-Significant Impact
Would the Project result in cumulatively considerable impacts related to hazards and hazardous materials?	Less-than-Significant Impact	No mitigation measures required.	Less-than-Significant Impact
Hydrology and Water Quality			
Would the Project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	Less-than-Significant Impact	No mitigation measures required.	Less-than-Significant Impact
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 Impact	No mitigation measures required.	Less-than-Significant Impact
Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:			
(i) Result in substantial erosion or siltation on or off site?	Less-than-Significant Impact	No mitigation measures required.	Less-than-Significant Impact

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measures	Level of Significance After Mitigation
(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	No mitigation measures required.	Less-than-Significant Impact
(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?	Less-than-Significant Impact	No mitigation measures required.	Less-than-Significant Impact
(iv) Impede or redirect flood flows?	Less-than-Significant Impact	No mitigation measures required.	Less-than-Significant Impact
Would the Project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	Less-than-Significant Impact	No mitigation measures required.	Less-than-Significant Impact
Would the Project result in cumulatively considerable impacts related to hydrology and water quality?	Less-than-Significant Impact	No mitigation measures required.	Less-than-Significant Impact
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 Impact	No mitigation measures required.	Less-than-Significant Impact
Would the Project result in cumulatively considerable impacts related to land use and planning?	Less-than-Significant Impact	No mitigation measures required.	Less-than-Significant Impact
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	Potentially Significant Impact	No feasible mitigation measures available.	Significant and Unavoidable Impact

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measures	Level of Significance After Mitigation
general plan or noise ordinance, or applicable standards of other agencies?			
Would the Project result in generation of excessive groundborne vibration or groundborne noise levels?	Less-than-Significant Impact	No mitigation measures required.	Less-than-Significant Impact
Would the Project result in cumulatively considerable impacts related to noise?	Potentially Significant Impact	No feasible mitigation measures available.	Significant and Unavoidable Impact
Transportation			
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	No mitigation measures required.	Less-than-Significant Impact
Would the Project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	Less-than-Significant Impact	No mitigation measures required.	Less-than-Significant Impact
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	No mitigation measures required.	Less-than-Significant Impact
Would the Project result in inadequate emergency access?	Less-than-Significant Impact	No mitigation measures required.	Less-than-Significant Impact
Would the Project result in cumulatively considerable impacts related to transportation?	Less-than-Significant Impact	No mitigation measures required.	Less-than-Significant Impact
Utilities and Service Systems			
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	Less-than-Significant Impact	No mitigation measures required.	Less-than-Significant Impact

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measures	Level of Significance After Mitigation
telecommunications facilities, the construction or relocation of which could cause significant environmental effects?			
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	No mitigation measures required.	Less-than-Significant Impact
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	No mitigation measures required.	Less-than-Significant Impact
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	No mitigation measures required.	Less-than-Significant Impact
Would the Project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	Less-than-Significant Impact	No mitigation measures required.	Less-than-Significant Impact
Would the Project result in cumulatively considerable impacts related to utilities and service systems?	Less-than-Significant Impact	No mitigation measures required.	Less-than-Significant Impact
Issues Analyzed in the Initial Study			
Aesthetics			
Would the Project have a substantial adverse effect on a scenic vista?	No Impact	No mitigation measures required.	No Impact
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 measures required.	No Impact

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measures	Level of Significance After Mitigation
Agriculture and Forestry Resources			
Would the Project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	No Impact	No mitigation measures required.	No Impact
Would the Project conflict with existing zoning for agricultural use, or a Williamson Act contract?	No Impact	No mitigation measures required.	No Impact
Would the Project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	No Impact	No mitigation measures required.	No Impact
Would the Project result in the loss of forest land or conversion of forest land to non-forest use?	No Impact	No mitigation measures required.	No Impact
Would the Project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	No Impact	No mitigation measures required.	No Impact
Cultural Resources			
Would the Project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	Less-than-Significant Impact	No mitigation measures required.	Less-than-Significant Impact
Geology and Soils			
Would the Project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:	Less-than-Significant Impact	No mitigation measures required.	Less-than-Significant Impact

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measures	Level of Significance After Mitigation
Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	Less-than-Significant Impact	No mitigation measures required.	Less-than-Significant Impact
Strong seismic ground shaking?	Less-than-Significant Impact	No mitigation measures required.	Less-than-Significant Impact
Seismic-related ground failure, including liquefaction?	Less-than-Significant Impact	No mitigation measures required.	Less-than-Significant Impact
Landslides?	No Impact	No mitigation measures required.	No Impact
Hazards and 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?	No Impact	No mitigation measures required.	No Impact
Would the Project be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	No Impact	No mitigation measures required.	No Impact
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?	No Impact	No mitigation measures required.	No Impact

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measures	Level of Significance After Mitigation
Would the Project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Less-than-Significant Impact	No mitigation measures required.	Less-than-Significant Impact
Would the Project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	No Impact	No mitigation measures required.	No Impact
Hydrology and Water Quality			
In flood hazard, tsunami, or seiche zones, would the Project risk release of pollutants due to project inundation?	No Impact	No mitigation measures required.	No Impact
Would the Project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	Less-than-Significant Impact	No mitigation measures required.	Less-than-Significant Impact
Land Use and Planning			
Would the Project physically divide an established community?	No Impact	No mitigation measures required.	No Impact
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 measures 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 measures required.	No Impact
Noise			
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	No Impact	No mitigation measures required.	No Impact

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measures	Level of Significance After Mitigation
Project expose people residing or working in the project area to excessive noise levels?			
Population and Housing			
Would the Project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	Less-than-Significant Impact	No mitigation measures required.	Less-than-Significant Impact
Would the Project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	No Impact	No mitigation measures 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:			
Police protection?	Less-than-Significant Impact	No mitigation measures required.	Less-than-Significant Impact
Schools?	No Impact	No mitigation measures required.	No Impact
Parks?	No Impact	No mitigation measures required.	No Impact
Other public facilities?	No Impact	No mitigation measures required.	No Impact
Recreation			
Would the Project increase the use of existing neighborhood and regional parks or other	No Impact	No mitigation measures required.	No Impact

Table 1-1. Summary of Project Impacts

Environmental Topic	Impact?	Mitigation Measures	Level of Significance After Mitigation
recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			
Does the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	No Impact	No mitigation measures required.	No Impact
Wildfire			
Would the Project substantially impair an adopted emergency response plan or emergency evacuation plan?	Less-than-Significant Impact	No mitigation measures required.	Less-than-Significant Impact
Due to slope, prevailing winds, and other factors, would the Project exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	Less-than-Significant Impact	No mitigation measures required.	Less-than-Significant Impact
Would the Project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	Less-than-Significant Impact	No mitigation measures required.	Less-than-Significant Impact
Would the Project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	Less-than-Significant Impact	No mitigation measures required.	Less-than-Significant Impact

Significant and Unavoidable Impacts

As identified in Table 1-1, the Project would result in significant and unavoidable impacts related to air quality, greenhouse gas emissions, and noise. The Project would:

Air Quality

- Conflict with or obstruct implementation of the applicable air quality plan.
- 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.
- Expose sensitive receptors to substantial pollutant concentrations.
- Have a cumulatively considerable contribution to significant cumulative air quality impacts.

Greenhouse Gas Emissions

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.
- Have a cumulatively considerable contribution to significant cumulative greenhouse gas emissions impacts.

Noise

- 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.
- Have a cumulatively considerable contribution to significant cumulative traffic noise impacts.

1.7 Effects Found Not to be Significant

Section 15128 of the CEQA Guidelines requires that an EIR briefly describe potential environmental effects that were determined not to be significant and therefore not discussed in detail in the EIR. This information can be provided in an initial study (IS). An IS was prepared for the Project and is provided in Appendix A. The following summarizes the environmental issues discussed in the IS that are not considered significant for the Project, and the reasons for these less-than-significant or no-impact significance determinations.

1.7.1 Agriculture and Forestry Resources

The Project site is designated as grazing land by the California Department of Conservation's Farmland Mapping and Monitoring Program (Appendix A). Grazing land does not include land designated or previously designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland). The site is zoned as Specific Plan Industrial (I-SP) and do not include any land under an existing Williamson Act Contract. Likewise, the site is not located on or adjacent to forestland, timberland, or timberland zoned timberland production. Therefore, the Project would not involve changes to the existing environment that could result in the indirect conversion of Farmland or forestland located in the surrounding areas and no impacts would occur.

1.7.2 Geology and Soils

The Project site is not located in an Alquist-Priolo Earthquake Fault Zone (Appendix A); therefore, the potential for surface fault rupture at the Project site is considered low. The Town, including the Project site, is located in a seismically active region within Southern California that is susceptible to strong ground shaking during an earthquake. However, the Project site is not located within an area that is subject to significant seismic hazards related to ground failure, including liquefaction, lateral spreading, seismically induced settlement, or landslides (Appendix A). While the Project site is located in a region with inherent seismic hazards, the Project would be constructed consistent with the California Building Code (CBC), the Project's Geotechnical Report, and any Town requirements that address building seismic safety concerns; thus, the Project would not exacerbate the risk of seismic ground shaking or seismic-related ground failure, which already exist in the Project area. Pursuant to the Town's Municipal Code (Section 8.12.010), design and construction of the Project is required to conform to the recommendations of the site-specific geotechnical investigations to address seismic hazards in accordance with current seismic design standards of the CBC, thereby minimizing the potential for seismic-related damage and safety impacts. Therefore, impacts related to seismic hazards would be less than significant.

Project construction would disturb surface soils and temporarily leave exposed soil on the ground's surface, which could potentially result in short-term soil erosion. However, Project construction activities would comply with all applicable federal, state, and local regulations for erosion control. Since Project construction would disturb more than 1 acre, the Project would be required to adhere to the provisions of the National Pollutant Discharge Elimination System (NPDES) Construction General Permit, which requires implementation of a stormwater pollution prevention plan (SWPPP) including best management practices (BMPs) to minimize erosion and sedimentation. Once developed, the Project site would include buildings, paved surfaces, and other on-site improvements that would stabilize and help retain on-site soils. Therefore, impacts related to soil erosion would be less than significant.

On-site soils have very low expansion potential (Appendix A). The Project would not use septic tanks or alternative wastewater disposal systems. An analysis of the Project's potential impacts on paleontological resources is provided in Section 4.4, Cultural, Tribal Cultural, and Paleontological Resources, of this EIR.

1.7.3 Mineral Resources

The Project site is not within an area that has been identified as potentially containing mineral resources and is not zoned for mineral resource extraction operations (Appendix A). Therefore, no impacts on the availability of known mineral resources of state, regional, or local importance would occur.

1.7.4 Population and Housing

The Project would require a temporary construction workforce, likely ranging from a dozen to several dozen workers per day, and a permanent operational workforce of an estimated 1,469 employees. Workforce requirements for construction and operation are anticipated to be met by the existing local labor force within the region. As such, the IS determined that the Project would not stimulate population growth or result in a population concentration above what is assumed in local and regional land use plans, resulting in less-than-significant impacts related to unplanned population growth. Furthermore, the Project site does not contain housing or other residential uses and would therefore have no impact related to displacement of people or housing.

1.7.5 Public Services

Fire Protection

The Apple Valley Fire Protection District (AVFPD) provides fire protection services to the Project site. As described in the IS, the Project could result in an incremental increase in calls for service to the Project site compared to existing conditions, which would be expected to be nominal (as opposed to new residential or commercial/retail land uses, which do result in greater increase in service calls) and would not result in the need for new or expanded fire protection facilities. Per Chapter 3.32, Fire Suppression Development Fee Program, of the Town's Municipal Code, the Project would be required to pay Development Impact Fees to contribute its fair share of the cost of facilities and equipment determined to be necessary to adequately accommodate new development in the Town. The IS found that the Project would be adequately served by existing AVFPD facilities, equipment, and personnel, but that impacts related to fire protection could be potentially significant without establishment of mutual aid agreements with adjacent jurisdictions.

Following preparation of the IS, the AVFPD and the City of Victorville renewed their agreement for automatic aid and mutual aid on June 20, 2023, for an additional 5 years. In addition to the mutual aid agreement in place with the City of Victorville, the AVFPD also maintains mutual aid agreements with the San Bernardino County Fire Department and the Bureau of Land Management. These agreements allow for fire departments in the region to actively support one another regardless of geographic or jurisdictional boundaries. Any of these fire protection departments may respond to emergency calls in the Town, including the Project site, if needed. A joint dispatch center that serves the mutual aid agencies is located in Victorville (Appendix A). Should an emergency occur related to the Project that would require resources beyond what AVFPD is able to provide, the mutual aid agreement that AVFPD maintains with Victorville, San Bernardino County Fire Department, and the Bureau of Land Management would ensure that supplemental personnel and resources would be available. The Project would be adequately served by existing fire protection facilities, equipment, and personnel and would not necessitate new or expanded facilities. Impacts would be less than significant.

Police Protection

An increased demand for police protection services is typically associated with an increase in population. As previously discussed, the Project is not expected to induce substantial population growth because it does not provide housing for new residents and is therefore not expected to result in a substantial increase in demand for police protection services such that new or expanded facilities would be required. Therefore, impacts related to police protection services would be less than significant.

Schools

The Project would not directly or indirectly induce unplanned population growth in the Town, nor would it include new housing that would generate a permanent increase in residents, including families with school-aged children. Furthermore, the Project would be subject to Senate Bill (SB) 50, which requires payment of mandatory impact fees to offset any impact to school services or facilities. Payment of the required impact fees by the Project applicant would ensure that no impacts occur.

Parks and Other Public Facilities

The Project would include construction of two industrial/warehouse buildings and does not propose any residential uses that may require parks and other recreational facilities. It is anticipated the Project would not increase the use of existing neighborhood parks or regional parks in the Town or in the surrounding area. Given the industrial nature of the Project, it is also unlikely that the Project would increase the use of libraries and other public facilities in the Town. Therefore, no impacts would occur.

1.7.6 Recreation

The Project would consist of new industrial uses and would not include recreational facilities. The Project would not directly or indirectly result in substantial unplanned population growth generally associated with new residential development that would lead to increased use of parks or recreational facilities or require the construction or expansion of recreational facilities. No impacts would occur.

1.7.7 Wildfire

In accordance with state law, the California Department of Forestry and Fire Protection (CAL FIRE) has developed fire hazard severity zone (FHSZ) maps that identify relative wildfire hazard potential over the long term (i.e., 30 to 50 years) for all areas of the state within state responsibility areas (SRAs). According to CAL FIRE's adopted FHSZ maps, the Project site is located in a local responsibility area (LRA) and is not classified as a very high FHSZ. The Project site is not located near SRAs or lands classified as very high FHSZ.

Access to the Project site during construction is required to be maintained at all times for emergency response and emergency evacuation, if needed. The Project does not propose any changes to the geometry of existing designated evacuation routes and roadways; therefore, such routes and any adopted emergency response or evacuation plans would not be compromised as a result of Project implementation. See Section 4.11, Transportation, for further discussion of emergency access.

The Project site is located in an area that is generally flat, lacking any steep slopes, and characterized as undeveloped land generally comprised of scattered desert scrub vegetation; these factors are not typically associated with the uncontrolled spread of wildfire. Furthermore, Project design would be required to comply with state and local fire codes to ensure the appropriate fire-safe regulations are implemented. The Project would include the installation of underground utility infrastructure, including water, wastewater, and storm drainage facilities, and the extension of overhead electrical lines, construction of such infrastructure would not exacerbate fire risk as the Project site is not located in a wildfire-prone area. Therefore, Project impacts related to wildfire would be considered less than significant.

1.8 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]).

1.8.1 No Project Alternative (Alternative 1)

Under Alternative 1, implementation 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 office spaces, surface parking and loading areas, and all other proposed on- and off-site improvements would not occur.

In the short term, consistent with existing conditions, the Project site would continue to be undeveloped. Under Alternative 1, the Project site would remain vacant, undeveloped land, although the site would presumably continue to be subject to illegal dumping, trespassing, and unpermitted off-road vehicle use, similar to the existing conditions.

1.8.2 Cordova Complex Only Alternative (Alternative 2)

Under Alternative 2, a warehouse would be constructed and operated on the Cordova Complex site similar to the Project. Under this alternative, the two western Joshua trees on the site would be avoided. The 1,462,342-square-foot warehouse building proposed on the Quarry at Pawnee site as part of the Project would not be constructed and the Quarry at Pawnee site would remain vacant and undeveloped and would not remove the existing 12 western Joshua trees or the desert native plants on the site, consistent with existing conditions, and would presumably continue to be subject to illegal dumping, trespassing, and unpermitted off-road vehicle use. Off-site roadway and utility improvements required under Alternative 2 would be reduced relative to the Project in that no roadway and utility improvements would be constructed east of Navajo Road, which includes improvements to Cordova Road between Navajo Road and Flint Road, improvements to Flint Road between Cordova Road and Quarry Road, construction of the sewer line within Cordova Road extending between the Cordova Complex site and Quarry at Pawnee site, and construction of the water line within Cordova Road from the Cordova Complex site to Flint Road and within Flint Road between Cordova Road and Quarry Road. All other off-site and on-site improvements proposed as part of the Project are assumed to still be required under Alternative 2. The number of employees would be reduced to approximately 739.

Avoidance of the two western Joshua trees on the Cordova Complex site, including a 186-foot-radius buffer in consideration of the seedbank, would result in a reduction of the available landscaping and paved parking/fire lane area in the southeastern portion of the Cordova Complex site, and a reduction of the available landscaping and paved parking/fire lane area approximately mid-way along the northern boundary of the site. In this area along the northern site boundary, the building setback would be increased by approximately 25 feet to accommodate the 186-foot seedbank buffer, resulting in a slight reduction in overall building size. For the purposes of this analysis, Alternative 2 is assumed to include construction of a warehouse on the Cordova Complex site that comprises approximately 50% of the overall size of the Project's proposed warehouse space, for a total of approximately 1,511,147 square feet. This alternative assumes that the on-site landscaping and stormwater drainage areas, and parking and fire lane areas would be redesigned, reconfigured, and/or rerouted as needed to accommodate the retention of the Joshua trees but would otherwise remain similar to the Project.

1.8.3 Reduced Project Alternative (Alternative 3)

Under Alternative 3, 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 779,976 square feet on the Cordova Complex site and 731,171 square feet on the Quarry at Pawnee site, for a total size of 1,511,147 square feet, compared to the

Project's total of 3,022,294 square feet. All other on-site and off-site improvements are assumed to still be required for Alternative 3. Since the building footprint would be reduced by a total of 1,511,147 square feet (approximately 18 acres on the Cordova Complex site and 17 acres on the Quarry at Pawnee site for a total of 35 acres), this extra space on the Project site would remain vacant. This would allow for avoidance of the two Joshua trees on the Cordova Complex site, and avoidance of some, but not all, of the Joshua trees on the Quarry at Pawnee site. In addition, the desert native plants on the Quarry at Pawnee site are assumed to be avoided. All other on- and off-site improvements proposed as part of the Project are assumed to still be required under Alternative 3. The number of employees would be reduced to approximately 716.

1.8.4 Environmentally Superior Alternative

CEQA Guidelines Section 15126.6(a) requires that an EIR's analysis of alternatives identify the "environmentally superior alternative" among all of those considered. In addition, Section 15126.6 [e][2] states that if the environmentally superior alternative is the No Project Alternative, the EIR must also identify an environmentally superior alternative among the other alternatives. Furthermore, Sections 21002 and 21081 of the Public Resources Code require lead agencies to adopt feasible mitigation measures or feasible alternatives in order to substantially lessen or avoid otherwise significant adverse environmental effects, unless specific social or other conditions make such mitigation measures or alternatives infeasible.

Each of the three Project alternatives considered herein would lessen at least one environmental impact relative to the Project. As previously addressed, if the No Project Alternative is the environmentally superior alternative—which is the case in this analysis—the EIR must also identify another environmentally superior alternative among the remaining alternatives.

Alternative 2 and Alternative 3 would both generally result in a reduction in the magnitude of many Project impacts. Impacts associated with air quality; cultural, tribal cultural, and paleontological resources; hazards and hazardous materials; hydrology and water quality; transportation; and noise would be similar under Alternative 2 and Alternative 3. Both Alternative 2 and Alternative 3 would reduce impacts compared to the Project, notably including the elimination of significant and unavoidable impacts related to air quality and noise. However, Alternative 2 and Alternative 3 would not lessen impacts related to GHG emissions to below a level of significance; therefore, GHG-related impacts would remain significant and unavoidable. While Alternative 2 and Alternative 3 would both ultimately include a similar overall amount of warehouse space, Alternative 2 would involve only one warehouse, which would result in less of a change in views and visual character due to the concentration on one site. Additionally, Alternative 2 would avoid biological resource impacts related to Joshua trees and desert native plants, while Alternative 3 would not be able to completely avoid impacts to Joshua trees or desert plants. Both Alternative 2 and Alternative 3 would similarly meet all of the Project objectives, but to a lesser degree than the Project. Therefore, Alternative 2 is the environmentally superior alternative under CEQA, as it would reduce the magnitude of most Project impacts, eliminate the Project's significant and unavoidable impacts related to air quality and noise, and avoid some of the Project's impacts on biological resources.

Alternative 2 would meet project Objective 1 of providing industrial uses within the NAVISP, but to a lesser degree than the Project because only one warehouse would be constructed instead of two. Alternative 2 would also not meet Objective 2 to the same extent as the Project. Alternative 2 would produce less jobs and generate less tax revenue compared to the Project. In addition, Alternative 2 would also not meet Objective 5 to the same extent as the Project due to reduced development. Therefore, while Alternative 2 would have reduced impacts compared to

the Project, it would not eliminate all of the significant and unavoidable impacts of the Project, and it would not meet all Project objectives, but to a lesser degree than the Project.

1.9 Areas of Controversy/Issues to Be Resolved

1.9.1 Scoping Comments

A notice of preparation (NOP) and IS for the Project was circulated for a 30-day comment period from September 1, 2023, to October 2, 2023, to determine the scope and extent of environmental issues to be addressed in this EIR. A public scoping meeting was held on September 13, 2023. In response to the NOP, written comments were received from four public agencies and one organization. No comments were received at the scoping meeting. The NOP/IS and public comments received in response to the NOP/IS are included in Appendix A.

The Town, as lead agency, has identified areas of concern based on the response to the NOP/IS. The comments received indicate that the areas of controversy associated with the Project include: (1) generation of air pollutant emissions, noise, and truck traffic; (2) protection of cultural resources, if present within the Project area; (3) inclusion of bicycle facilities in the Project's off-site roadway improvements; and (4) impacts on environmental justice communities.

All substantive environmental issues raised in the comment letters received in response to the NOP/IS have been addressed or otherwise considered during preparation of this EIR.

1.9.2 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 Project, the key issues to be resolved include decisions by the Town, as lead agency, as to the following:

- Whether this EIR 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 EIR.

1.10 References

Leighton Consulting, Inc. 2023a. *Geotechnical Exploration, Proposed Industrial Warehouse Development, Assessor's Parcel Number (APN's) 0463-213-05, 06, 07, 08, 09, 16, 33, 34, 35, and 46, Southeast of Cordova Road and Dachshund Avenue, Apple Valley, San Bernardino County, California*. February 1, 2023.

Leighton Consulting, Inc. 2023b. *Geotechnical Exploration, Proposed Industrial Warehouse Development, Assessor's Parcel Number (APN's) 0463-214-06, 07, 08, and 09, Southwest of Quarry Road and Flint Road, Apple Valley, San Bernardino County, California*. February 1, 2023.

Town of Apple Valley. 2009. Apple Valley General Plan Environmental Impact Report. Accessed October 13, 2023, at https://www.applevalley.org/home/showpublisheddocument/24331/636552384686570000.

2 Introduction

2.1 Purpose of the Environmental Impact Report

This environmental impact report (EIR) has been prepared by the Town of Apple Valley (Apple Valley or Town), as lead agency for the Cordova Complex and Quarry at Pawnee Warehouse Project (Project). This EIR has been prepared in accordance with the California Environmental Quality Act (CEQA), which is found in the California Public Resources Code (PRC), Division 13, and with the CEQA Guidelines, which are found in Title 14 of the California Code of Regulations (CCR), commencing with Section 15000. Under CEQA, the lead agency for a project is the public agency with primary responsibility for carrying out or approving the project, and for implementing the requirements of CEQA.

As stated in CEQA Guidelines Section 15002, the basic purposes of CEQA are to:

- Inform governmental decision makers and the public about the potential, significant environmental effects of proposed activities.
- Identify the ways that environmental damage can be avoided or significantly reduced.
- 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.
- Disclose to the public the reasons a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

Pursuant to CEQA Guidelines Section 15121, an EIR is an informational document that is required to (1) identify the potentially significant environmental effects of a project on the environment, (2) indicate the manner in which those significant effects can be avoided or significantly lessened via the implementation of potentially feasible mitigation measures, (3) identify a reasonable range of potentially feasible alternatives to a project that would eliminate or substantially lessen any significant environmental effects, and (4) identify any significant and unavoidable adverse impacts that cannot be mitigated or otherwise reduced. When considering whether to approve a proposed project, the lead agency's decision-making body must consider the information in the EIR along with other information which may be presented to that body. While the information in the EIR does not control the ultimate decision about a project, the decision-making body must consider the information in the EIR and respond to each significant effect identified in the EIR by making findings pursuant to PRC Section 21081.

Pursuant to PRC Section 21002, public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures which would substantially lessen the significant environmental effects of such projects. Furthermore, pursuant to CEQA Guidelines Section 15021, CEQA establishes a duty for public agencies to avoid or minimize environmental damage where feasible. In deciding whether changes in a project, such as mitigation measures or alternatives, are feasible, an agency may consider specific economic, environmental, legal, social, and technological factors. As defined in Section 15364 of the CEQA Guidelines, "feasible" means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors. Under CEQA case law, "'"feasibility" … encompasses "desirability" to the extent that desirability is based on a reasonable balancing of the relevant economic, environmental, social, and technological factors.'" (*California Native Plant Society v. City of Santa Cruz* [2009] 177 Cal.App.4th 957, 1001, quoting *City of Del Mar v. City of San Diego* [1982] 133 Cal.App.3d 410, 417.) In addition, in determining whether mitigation measures or alternatives are feasible, agencies may account for the extent to

which they meet project objectives. (*Sierra Club v. County of Napa* [2004] 121 Cal.App.4th 1490, 1506-1509; *Citizens for Open Government v. City of Lodi* [2012] 205 Cal.App.4th 296, 314-315; and *In re Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings* [2008] 43 Cal.4th 1143, 1165, 1166.)

CEQA Guidelines Section 15093 provides that, if an agency decides to approve a project that will cause one or more significant effects on the environment, the agency must prepare a "statement of overriding considerations" to reflect the ultimate balancing of competing public objectives.

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 PRC 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;
- Require feasible changes in any or all activities involved in the Project to substantially lessen or avoid significant effects on the environment;
- 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 the proposed Conditional Use Permit, Tentative Parcel Map, Development Agreement, and all other governmental 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 and CEQA Guidelines Section 15097. 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 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 (CDFW) is a trustee agency, because the Project has the potential to impact plant and wildlife species that are managed and protected by the state.

2.4 Overview of Project Analyzed in this Environmental Impact Report

This EIR addresses the potential physical environmental effects of construction and operation of two new warehouse buildings totaling approximately 3,022,294 square feet (sf), located on approximately 163 acres of vacant land in Apple Valley (the approximately 87-acre Cordova Complex site and approximately 76-acre Quarry at Pawnee site). The Cordova Complex warehouse building would be 1,559,952 sf and would include a total of 266 loading dock doors, with 133 loading dock doors along the northern warehouse façade and 133 loading dock doors along the southern façade. The Quarry at Pawnee warehouse building would be slightly smaller at 1,462,342 sf and would include a total of 235 loading dock doors with 118 loading dock doors along the eastern warehouse façade with an additional 117 loading dock doors along the western façade. The Project would involve associated on-site improvements, including truck and vehicle parking, on-site stormwater detention basins, and landscaped areas. The Project would also include off-site roadway improvements, including widening and paving of roadways used to access the Project site, as well as installation of or upsizing of water and sewer lines in the immediate vicinity of the Project site. A full description of all Project components is provided in Chapter 3, Project Description.

2.5 Scope of the Environmental Impact Report

2.5.1 Scoping

Scoping refers to the public outreach process conducted by the lead agency to determine the coverage and content of an EIR. The scoping process for an EIR is initiated by publication of the Notice of Preparation (NOP), as required by CEQA, which provides formal notice to the public and to interested agencies and organizations that an EIR is in preparation. Additionally, the NOP informs public agencies and the public that the Project could have significant effects on the environment and solicits their comments so that any concerns raised can be considered during the preparation of the EIR. During the scoping period, agencies and the public are invited to comment on the Project, the approach to the environmental analysis, and any issues of concern to be discussed in the EIR. Scoping also can

assist the lead agency with identification of Project alternatives and mitigation measures. The scoping period offers an important early opportunity for public review and comment on the focus of the CEQA analysis.

Pursuant to CEQA Guidelines Section 15063(c), an initial study (IS) was prepared to provide the basis for focusing the EIR on the potentially significant effects of the Project. The Town concluded that the Project could potentially have direct or indirect adverse effects on the environment and determined the need for preparation of an EIR for the Project. In accordance with CEQA Guidelines Section 15082, the Town published the NOP/IS on September 1, 2023, for a 30-day public comment period ending on October 2, 2023. The NOP/IS was circulated to the public; local, state, and federal agencies; Native American tribes; and other interested parties. In addition, the Town held one public scoping meeting on September 13, 2023, to provide the public with an opportunity to learn about the Project and CEQA process, ask questions, and submit comments. No one attended the scoping meeting.

A summary of scoping comments is provided in Table 2-1. The comment letters and the NOP/IS are included in Appendix A of this EIR.

Table 2-1. Summary of Scoping Comments

Commenter	Date	Summary of Environmental Issues Raised	EIR Chapter/Section Where Comment is Addressed
Agencies			
Mojave Desert Air Quality Management District (MDAQMD)	September 28, 2023	▪ Project construction and operations would involve activities that would generate both short-term and long-term criteria air pollutants and other emissions or odors. ▪ The EIR should analyze adverse effects related to air quality and sensitive receptors; residential sensitive receptors are within 100 feet of the Quarry at Pawnee site. ▪ Provides list of MDAQMD-required dust mitigation measures for construction.	Section 4.2, Air Quality; Section 4.6, Greenhouse Gas Emissions
State of California Department of Justice	September 8, 2023	▪ Concerns regarding Project impacts on air quality, noise, and transportation. ▪ Recommendations for best practices and mitigation measures for warehouse projects.	Section 4.2, Air Quality; Section 4.10, Noise; Section 4.11, Transportation
State of California Native American Heritage Commission (NAHC)	September 2, 2023	▪ The EIR should determine whether there are historical resources within the area of potential effect. ▪ Indicates that Assembly Bill (AB) 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed. ▪ Detailed requirements of AB 52 and Senate Bill 18 are listed. ▪ Provides recommendations for cultural resources assessments.	Section 4.4, Cultural, Tribal Cultural, and Paleontological Resources
San Bernardino County Department of Public Works	September 20, 2023	▪ Requests to be included on the circulation list for all project notices, public reviews, or public hearings.	N/A

Table 2-1. Summary of Scoping Comments

Commenter	Date	Summary of Environmental Issues Raised	EIR Chapter/Section Where Comment is Addressed
Organizations			
Center for Community Action and Environmental Justice (CCAEJ)	September 12, 2023	▪ Concerns regarding Project impacts on truck traffic and associated pollution in the vicinity of environmental justice communities. ▪ Concerns regarding the inclusion and design of bicycle facilities with the Project's off-site roadway improvements. ▪ Concern regarding hazardous conditions from construction and widening of roads. ▪ Concern about vehicle miles traveled impacts and air quality impacts.	Section 4.2, Air Quality; Section 4.11, 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.

Based on the IS (see Appendix A) and public comments received in response to the NOP (see Table 2-1 above), the Town has determined that certain environmental resource topics merit a detailed analysis while others were found to have no impact or a less-than-significant impact and are not discussed in detail in the EIR. See Section 1.7, Effects Found Not to be Significant, in Chapter 1, Executive Summary, for a discussion of those effects found to not to be significant; and therefore, not further addressed in this EIR.

2.5.3 Environmental Issues Determined to be Potentially Significant

Pursuant to 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 (see Table 2-1 above) 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/IS, as well as issues raised by agencies, organizations, and members of the public in response to the NOP. Chapter 4, Environmental Analysis, of this EIR provides a detailed evaluation of the following environmental resource topics: 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; noise; transportation; and utilities and service systems.

As indicated above, the environmental review focuses on the potentially significant environmental effects of the Project. As defined in CEQA Guidelines Section 15382, a "significant effect on the environment" is "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether a physical change is significant."

In evaluating the significance of the environmental effect of a project, the CEQA Guidelines require the lead agency to consider direct physical changes in the environment and reasonably foreseeable indirect physical changes in the environment which may be caused by the project (CEQA Guidelines Section 15064[d]). A direct physical change in the environment is a physical change in the environment which is caused by and immediately related to the project. An indirect physical change in the environment is a physical change in the environment, which is not immediately related to the project, but which is caused indirectly by the project. An indirect physical change is to be considered only if that change is a reasonably foreseeable impact which may be caused by the project.

CEQA Guidelines Section 15064(e) further indicates that economic and social changes resulting from a project shall not be treated as significant effects on the environment, although they may be used to determine that a physical change shall be regarded as a significant effect on the environment. In addition, where a reasonably foreseeable physical change is caused by economic or social effects of a project, the physical change may be regarded as a significant effect in the same manner as any other physical change resulting from the project.

2.6 Organization of the 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 EIR:

- **Chapter 1: Executive Summary.** The Executive Summary provides a summary of the Project and Project alternatives, including a summary of Project impacts, recommended mitigation measures, and the level of significance before and 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, Project background, Project objectives, and required Project approvals are also provided.
- **Chapter 4: Environmental Analysis.** The Environmental Analysis chapter analyzes the environmental impacts of the Project by environmental resource topics. Each topic includes a description of the existing conditions, regulatory framework, significance criteria, project and cumulative impacts, mitigation measures, and level of significance after mitigation.
- **Chapter 5: Other CEQA Considerations.** The Other CEQA Considerations chapter provides a summary of significant environmental impacts, including unavoidable, irreversible, and growth-inducing impacts.

- **Chapter 6: Alternatives.** The Alternatives chapter provides a comparison between the Project impacts and three Project alternatives: (1) the No Project Alternative, (2) the Cordova Complex Only Alternative, and (3) the Reduced Project Alternative.
- **Chapter 7: 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/IS (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 Review of the Draft Environmental Impact Report

Upon completion of this Draft EIR, the Town prepared and filed a notice of completion (NOC) with the Governor's Office of Planning and Research, State Clearinghouse to start the public review period (PRC Section 21161). Concurrent with the NOC, the Town distributed a notice of availability (NOA) in accordance with CEQA Guidelines Section 15087. The NOA was mailed to the agencies, organizations, and individuals who previously requested in writing to receive a notice when the Draft EIR was available for review. 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). This Draft EIR has been published and circulated for review and comment by the public and other interested parties, agencies, and organizations for a 45-day public review period from Friday, May 24, 2024, through Monday, July 8, 2024. 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
Monday through Thursday from 8:00 a.m. to 4:00 p.m. and Friday from 8:00 a.m. to 3:00 p.m. (closed on alternate Fridays)

San Bernardino County Library
14901 Dale Evans Parkway
Apple Valley, California 92307
Monday through Wednesday 11:00 a.m. to 7:00 p.m., Thursday 10:00 a.m. to 6:00 p.m., and Saturday 9:00 a.m. to 5:00 p.m.

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, have the opportunity to comment on this Draft EIR during the public review period. Written comments on this Draft EIR may be submitted by mail or email no later than 5:00 p.m. on Monday, July 8, 2024, and should be addressed to:

Rick Hirsch, Consulting Planner
Town of Apple Valley
14955 Dale Evans Parkway
Apple Valley, California 92307
Email: rhirsch@interwestgrp.com

The Town encourages public agencies, organizations, community groups, and all other interested persons to provide written comments on the Draft EIR prior to the end of the 45-day public review period. CEQA Guidelines Section 15204(a) provides guidance on the focus of review of EIRs, indicating that in reviewing Draft EIRs, persons and public agencies "should focus on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated," and that comments are most helpful when they suggest additional specific alternatives or mitigation measures that would provide better ways to avoid or mitigate the significant environmental effects. This section further states that "reviewers should be aware that the adequacy of an EIR is determined in terms of what is reasonably feasible, in light of factors such as the magnitude of the project at issue, the severity of its likely environmental impacts, and the geographic scope of the project. CEQA does not require a lead agency to conduct every test or perform all research, study, and experimentation recommended or demanded by commenters. When responding to comments, lead agencies need only respond to significant environmental issues and do not need to provide all information requested by reviewers, as long as a good faith effort at full disclosure is made in the EIR."

Upon completion of the public review period, written responses to all substantive environmental comments will be 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 will be considered for recommendation to the Apple Valley Town Council. The comments received and the responses to those comments will be included in the Final EIR for consideration by the Town's decisionmakers.

3 Project Description

This chapter provides a detailed description of the proposed Cordova Complex and Quarry at Pawnee Warehouse Project (Project) and includes information about the Project location; environmental setting; Project purpose and objectives; Project characteristics; construction, phasing, and schedule; and required development approvals and discretionary actions necessary to implement the Project.

As discussed in detail below, VVLIG US Holdings (the Project Applicant) is proposing construction and operation of two warehouse buildings, totaling approximately 3,022,294 square feet (sf), located on two sites, totaling approximately 163 acres, within the northern portion of the Town of Apple Valley (Apple Valley or Town), San Bernardino County, California. Construction of the two buildings would occur over a period of approximately 18 months, beginning in Fall 2024. Tenants of the Project have not yet been identified, but the Project would operate as a warehouse and/or distribution facility.

3.1 Project Location

The Project would be located within the northern portion of Apple Valley, which is an incorporated town located within the Victor Valley region of San Bernardino County (see Figure 3-1). The Town is bordered by the City of Victorville to the west, the City of Hesperia to the southwest, and unincorporated San Bernardino County to the north and east. Regional Access to Apple Valley is provided by Interstate 15 (I-15) and State Route 18 (SR-18).

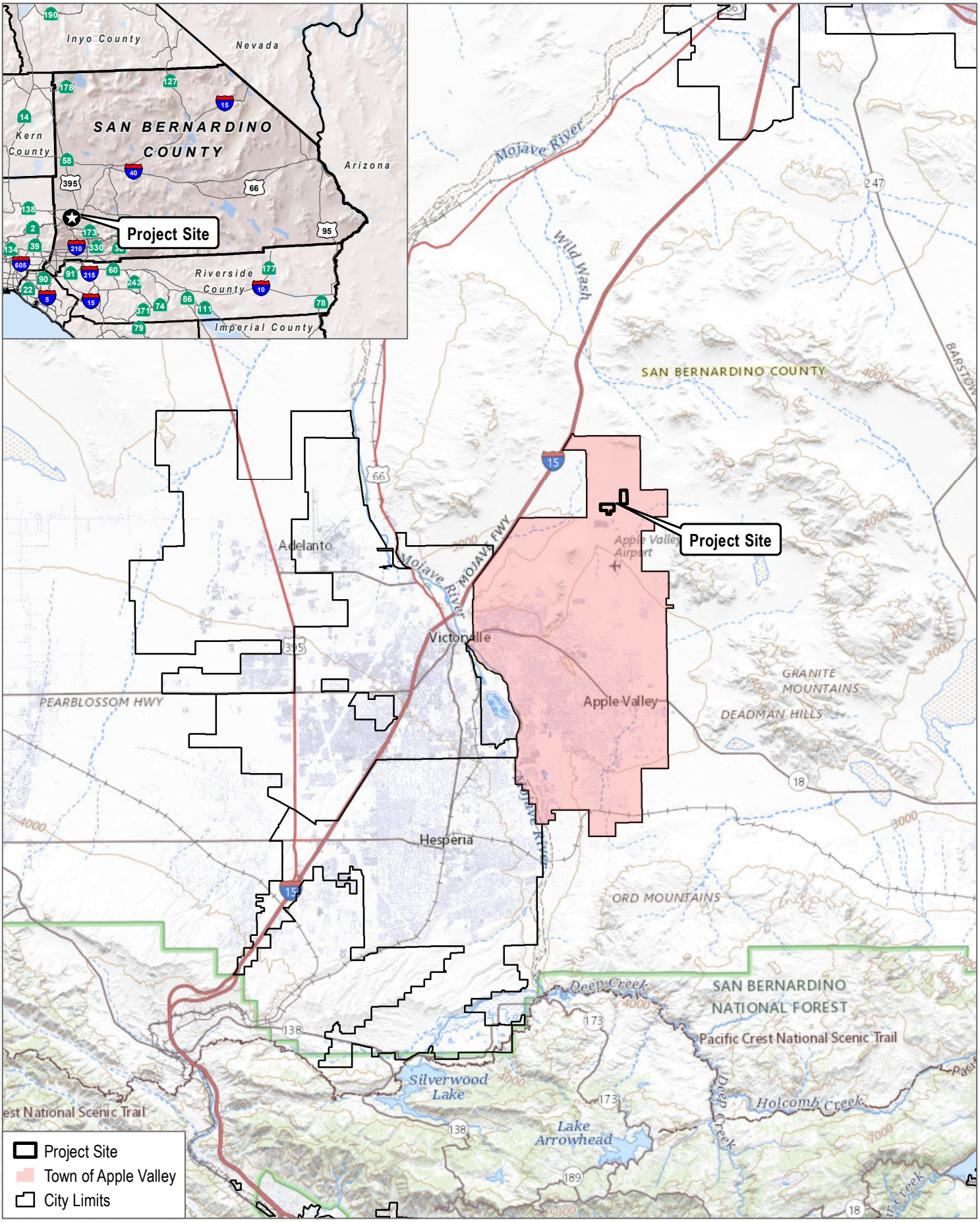
The approximately 163-acre Project site would include two noncontiguous sites: the Cordova Complex site, and the Quarry at Pawnee site. The approximately 87-acre Cordova Complex site is bounded by Cordova Road to the north, Navajo Road to the east, Doberman Street and undeveloped land to the south, and Dachshund Avenue to the west (see Figure 3-2). The Cordova Complex site is comprised of 10 parcels (Assessor's Parcel Numbers [APNs] 0463-213-05, 06, 07, 08, 09, 16, 33, 34, 35, and 36).

The approximately 76-acre Quarry at Pawnee site is bounded by Quarry Road to the north, Flint Road to the east, Cordova Road to the south, and an unnamed road to the west (see Figure 3-3). The Quarry at Pawnee site is located approximately 1,400 feet to the northeast of the Cordova Complex site. The Quarry at Pawnee site is comprised of four parcels (APNs 0463-214-06, 07, 08, and 09).

3.2 Environmental Setting

3.2.1 Town of Apple Valley

The Town encompasses 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 is located primarily on alluvial slopes of the Mojave River floodplain, at the southern edge of the Mojave Desert. Elevations range from approximately 2,800 feet above sea level near the Mojave River in the southwestern corner of the Town, to approximately 3,200 feet above sea level at the northeastern portion of the 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 Mountain and Black Mountain are located to the north of the Town, Fairview Mountain to the northeast, and the Granite Mountains to the southeast.



SOURCE: USGS National Topographic Map

DUDEK

0 2.5 5 Miles

FIGURE 3-1

Regional Project Location

Cordova Complex and Quarry at Pawnee Warehouse Project

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

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0 200 400 Feet

FIGURE 3-2

Cordova Complex Site

Cordova Complex and Quarry at Pawnee Warehouse Project

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

DUDEK

0 250 500 Feet

FIGURE 3-3

Quarry at Pawnee Site

Cordova Complex and Quarry at Pawnee Warehouse Project

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 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 Project site is within the North Apple Valley Industrial Specific Plan (NAVISP) and the site and surrounding area are designated for Specific Plan Industrial (I-SP) and General Industrial (I-G) land uses. The Project site is designated I-SP in the NAVISP and Specific Plan (SP) in the Town's General Plan and is also zoned as SP (Town of Apple Valley 2009a, 2012, 2022).

3.2.2 Cordova Complex Site

The approximately 87-acre Cordova Complex site is vacant, undeveloped land with scattered low-lying shrubs. Two Joshua trees (*Yucca brevifolia*) are present on the site. The site contains several small, unvegetated, ephemeral drainages that appear to be tributaries to Bell Mountain Wash, which flows west of I-15 in Victorville. The topography of the site is generally flat with elevations ranging from 3,060 to 3,080 feet above mean sea level. The site is surrounded by undeveloped land to the north, east, and west. Two rural residences that appear to be occupied are located adjacent to the site's southwestern corner, southeast of the Dachshund Avenue/Doberman Street intersection. Additional scattered rural residences that appear to be occupied are located farther to the northwest of the site, north of the Cordova Road/Comanche Road intersection, and southeast of the Dale Evans Parkway/Quarry Road intersection. Other developed land uses in the Project site vicinity are located to the south and include a Walmart Distribution Center and Victor Valley College Regional Public Safety Training Center approximately 0.1 miles to the south, and Fresenius Medical Care Distribution Center and Big Lots Distribution Center approximately 0.6 miles to the south. The Apple Valley airport is located approximately 1 mile south of the site.

The majority of roadways in the vicinity of the Cordova Complex site are unpaved, except for Dale Evans Parkway, Johnson Road, and Navajo Road south of Johnson Road, which are paved roads with unimproved dirt shoulders. Cordova Road, Dachshund Road, Doberman Street, and Navajo Road bordering the site are graded and unpaved roads.

As mentioned above, the site is within the NAVISP and is designated Specific Plan Industrial (I-SP) in the NAVISP and Specific Plan (SP) in the Town of Apple Valley General Plan and is also zoned as SP (Town of Apple Valley 2009, 2012, 2022).

3.2.3 Quarry at Pawnee Site

The approximately 76-acre Quarry at Pawnee site is very similar to the Cordova Complex site and includes vacant, undeveloped land with scattered low-lying shrubs. The site contains several small, unvegetated, ephemeral drainages that appear to be tributaries to Bell Mountain Wash and eleven Joshua trees. The topography of the site is generally flat with elevations ranging from 3,120 to 3,160 feet above mean sea level. Surrounding uses to the north, south, and west consist of undeveloped land. A single rural residence that appears to be occupied is located directly east of the site's northeastern corner, east of Flint Road. An additional rural residence that appears to the be occupied is located farther to the north of the site, southwest of the Flint Road/Kimshew Street intersection. Other developed land uses in the Project site vicinity are located to the south and include a Walmart Distribution Center and Victor Valley College Regional Public Safety Training Center approximately 0.7 miles to

the southwest, Fresenius Medical Care Distribution Center approximately 1 mile to the south, and Big Lots Distribution Center approximately 1.1 miles to the southwest. The Apple Valley airport is located approximately 1.25 miles south of the site.

The majority of roadways in the vicinity of the Quarry at Pawnee site are unpaved, except for Quarry Road, which is a paved road with unimproved dirt shoulders. Cordova Road and Flint Road bordering the site are graded and unpaved roads.

The Quarry at Pawnee site is also within the NAVISP and is designated I-SP in the NAVISP and SP in the Town of Apple Valley General Plan and is also zoned as SP (Town of Apple Valley 2009, 2012, 2022).

3.3 Project Purpose and Objectives

Section 15124 of the California Environmental Quality Act (CEQA) Guidelines indicates that an EIR project description must include a statement of the objectives sought by the lead agency for that project. A clearly written statement of objectives helps the lead agency develop a reasonable range of alternatives to evaluate in the EIR and aids the decision makers in preparing findings or a statement of overriding considerations, if necessary. The statement of objectives should include the underlying purpose of that project.

The underlying purpose of the Project is to develop two warehouses and associated improvements within the NAVISP area of Apple Valley. 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/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.

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.

3.3.1 Project Objectives

The objectives for the Project are as follows:

[1] A jobs/housing ratio is a commonly used economic metric used to determine whether a 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 2021, the Town had a jobs/housing ratio of 1.07, which is below regional targets ranging from 1.25–1.50 (SCAG 2021; APA 2003).

1. Develop a project within the North Apple Valley Industrial Specific Plan area to meet the existing and growing demand for large-format logistics and warehouse buildings in the region.
2. Develop a fiscally sound, jobs-producing, and tax-generating land use in north Apple Valley.
3. 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 pollutant emissions, industrial noise, and biological resources to the greatest extent feasible.
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.
5. Implement the development patterns envisioned in the North Apple Valley Industrial Specific Plan.

3.4 Project Characteristics

3.4.1 Project Components

The Project would include construction and operation of two industrial warehouse buildings and associated improvements on approximately 163 acres of vacant land (the approximately 87-acre Cordova Complex site and approximately 76-acre Quarry at Pawnee site). The Project would operate as a high-pile[2] storage warehouse for the storage and distribution of manufactured goods/materials with ancillary office uses. Both warehouse buildings would be 48-feet to the top of the roof deck, consistent with the underlying zoning and would not exceed 52 feet in height to the top of the roof parapet. Each warehouse building would include 5,000 sf of office space on the ground floor and 5,000 sf of office space on the second floor. The warehouses would be built as tilt-up[3] (Type III-B) structures with concrete walls. No refrigeration would be included for cold storage.

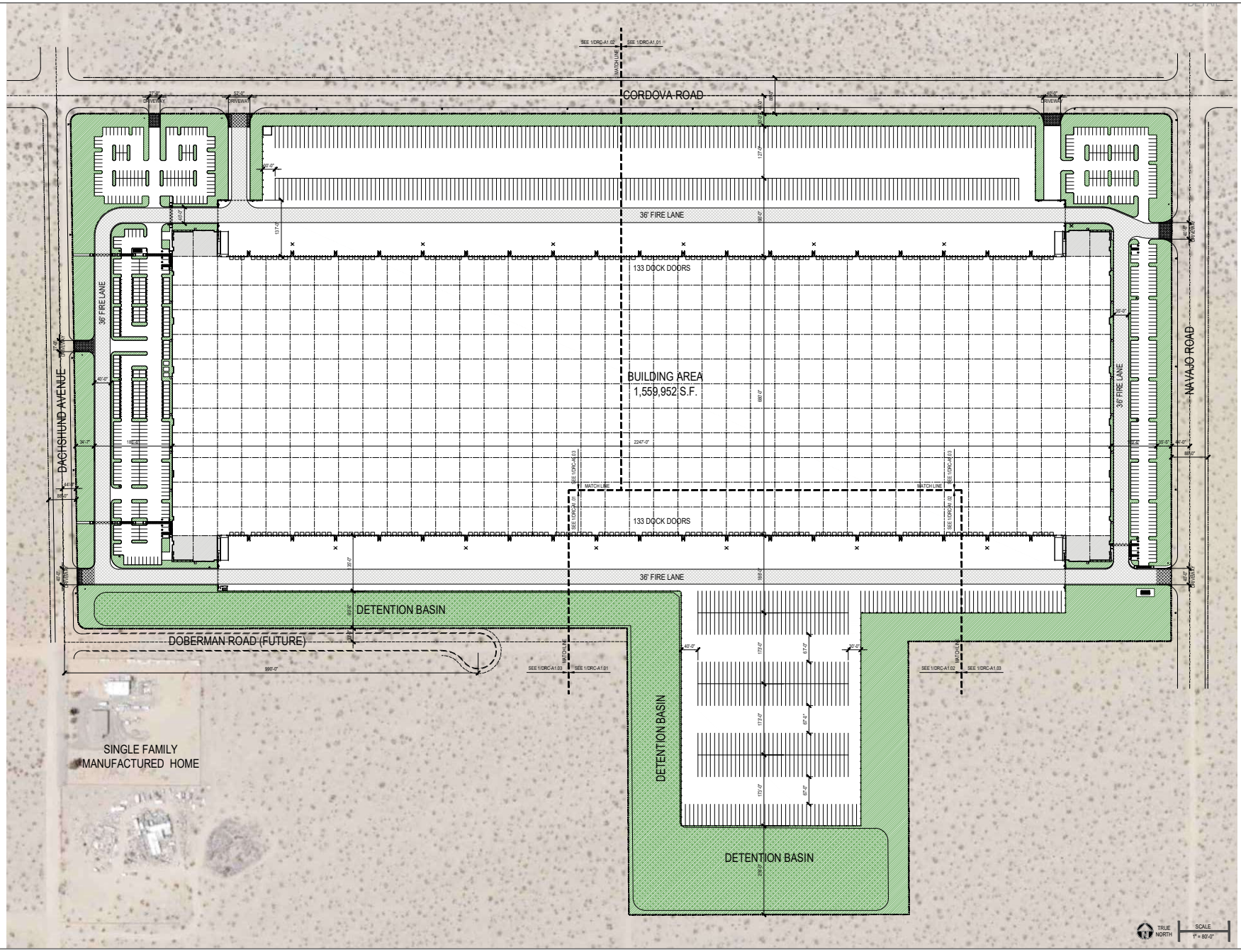
The Cordova Complex warehouse building would be 1,559,952 sf and would include a total of 266 loading dock doors, with 133 loading dock doors along the northern warehouse façade and 133 loading dock doors along the southern façade (see Figure 3-4). The building would have a floor area ratio (FAR) of 0.41.

The Quarry at Pawnee warehouse building would be slightly smaller at 1,462,342 sf and would include a total of 235 loading dock doors with 118 loading dock doors along the eastern warehouse façade with an additional 117 loading dock doors along the western façade (see Figure 3-5). The building would have a FAR of 0.44.

The warehouse buildings would be equipped with Early Suppression, Fast Response (ESFR) ceiling-mounted sprinklers to support operational uses as well as provide fire safety and protection.

The Project would include preparation of a landscape plan that would include both the Cordova Complex and Quarry at Pawnee sites with landscaped areas incorporated along the site boundaries and throughout surface parking areas. Plantings would meet the Town's landscaping requirements set forth in the NAVISP include a variety of trees, shrubs, accent plants, and groundcovers. Landscaped areas would comprise approximately 720,900 square feet (approximately 19%) of the Cordova Complex site and approximately 500,765 square feet (approximately 15%) of the Quarry at Pawnee site.

2 High-pile storage refers to storage of products in vertical racks or shelves that are 12 feet or greater in height.
3 Tilt-up construction features series of concrete panels tilted up into place to form a building's exterior wall.



SOURCE: SKH 2023

FIGURE 3-4

Cordova Complex Site Plan

Cordova Complex and Quarry at Pawnee Warehouse Project

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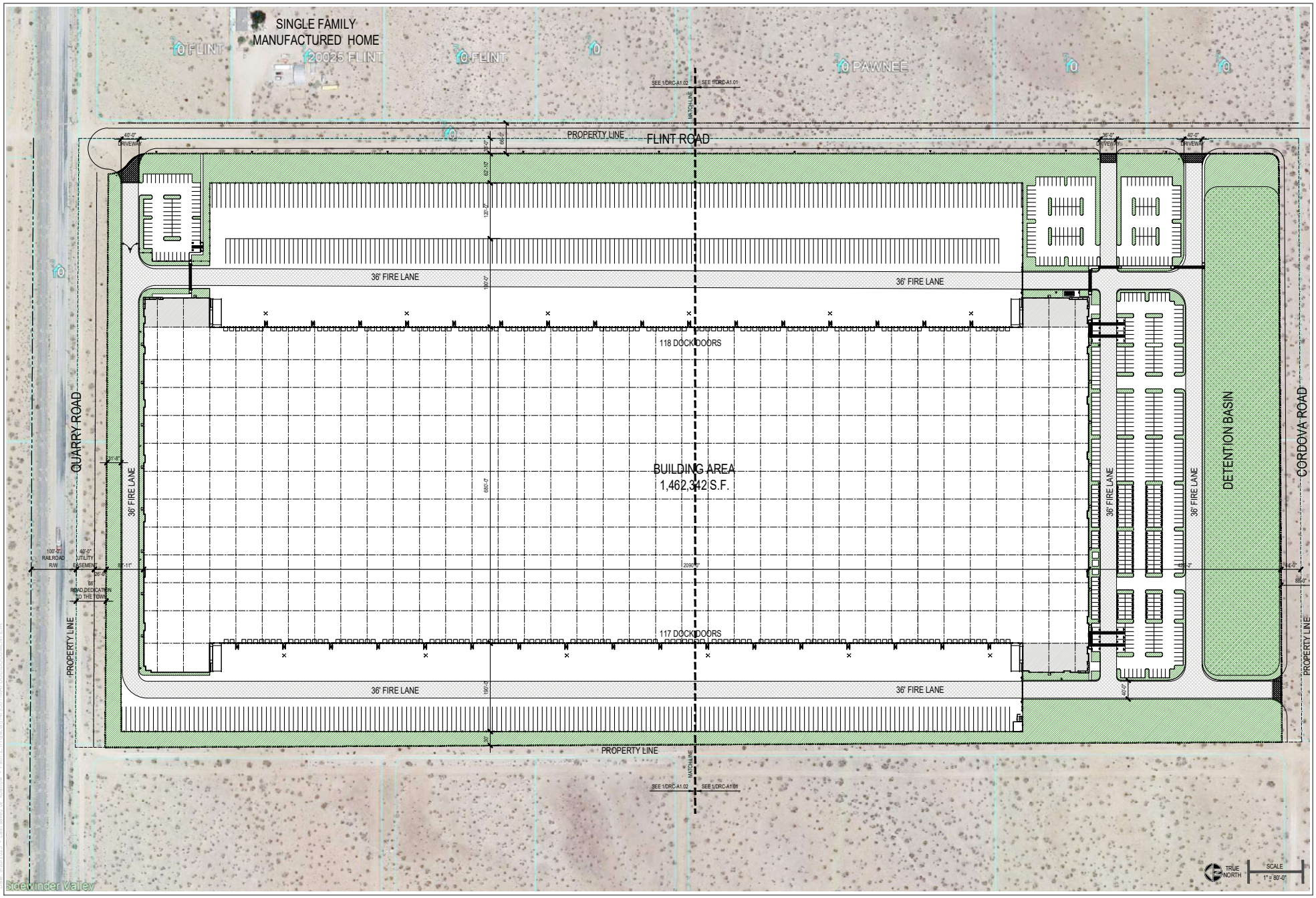

SOURCE: SKH 2024

FIGURE 3-5

Quarry at Pawnee Site Plan

Cordova Complex and Quarry at Pawnee Warehouse Project

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Other on-site improvements at each site would include surface parking, including parking spaces for trucks, electric vehicles (EVs), and bicycles; and construction of detention basins for on-site drainage and stormwater/rain capture. An approximately 8-foot-tall wrought iron fence would be installed around the on-site truck court, trash enclosure, and pump house. The pump house would contain one 2,000-gallon-per-minute diesel fire pump to meet ESFR sprinkler system requirements. On-site lighting would also be installed throughout the site, including pole-mounted parking lot lights and along building exteriors. All lighting would comply with the Town's Municipal Code, specifically with Title 9 Development Code (Section 9.47.090 Lighting) and Chapter III of the NAVISP, which contains general performance standards related to light and glare, including requirements that all outdoor lighting be shielded and all light and glare be directed onto the Project site and away from adjacent properties.

The warehouse buildings would include a 100-kilowatt (kW) solar system with a 50-kW battery backup. The Project would also be designed to achieve Leadership in Energy and Environmental Design (LEED) Silver certification.

3.4.2 Sustainability Features and Project Design Features

The Project has been designed to include a number of Project Design Features (PDFs) to minimize the Project's environmental impacts. These PDFs are included within the Project. To ensure that these PDFs are implemented during construction and operation, they will be tracked within the Project's Mitigation Monitoring and Reporting Program. These PDFs are provided below and organized by site and building design, construction, and operation.

Building Design

- **PDF-DES-1: Sustainable Design/LEED Measures.** The Project shall be designed so that it is able to achieve LEED Silver certification at the time of building permit application. Documentation shall be provided to the Town of Apple Valley demonstrating that the Project meets this requirement prior to the issuance of building permits.
- **PDF-DES-2: Sustainable Concrete Building Materials.** The Project shall be designed with sustainable materials that will reduce 35% of the overall carbon footprint compared to other traditionally designed concrete tilt warehouses. The following measures shall be implemented:
  - The Project shall reduce overall concrete in the slab by 10% through the use of a steel fiber mix to increase the overall strength of the concrete to reduce concrete thickness.
  - The Project shall reduce overall concrete in the tilt walls by 30% by providing 4-inch foam insultation in the middle of the concrete panel (also known as composite panels). The foam insulation will result in an R value of R-19, while traditional concrete tilt walls have no R value, thereby reducing overall energy consumption and increasing occupant comfort.
  - The roof shall have a 10% reduction in steel because of the lighter concrete tilt walls due to the foam insulation.
  - The Project specifications shall require the use of sustainable concrete to reduce the Project's overall carbon footprint by 35%.
- **PDF-DES-3: Electrical Infrastructure for Electric Equipment and Vehicles.** The Project shall be designed to include electrical infrastructure to accommodate the required number of electric vehicle charging stations, the anticipated number charging stations for electric cargo handling equipment, and the potential installation of additional automobile and truck electric vehicle charging stations per Title 24, Part 11 (California Green Building Standards (CALGreen). Electrical conduit shall be installed within reasonable locations (e.g., parking areas, at or near dock doors) at the time of building construction to satisfy this requirement. The Project's electrical rooms shall be of sufficient size to accommodate the upsizing of electrical equipment to accommodate potential future electrical loads.

- **PDF-DES-4: Electric Vehicle Charging Stations.** Prior to issuance of a Certificate of Occupancy, Level 2 (or faster) electric vehicle charging stations shall be installed on-site for employees for the percentage of employee parking spaces commensurate with Title 24, Part 11 (CALGreen) requirements in effect at the time of building permit issuance plus additional charging stations equal to 5% of the total employee parking spaces in the building permit, whichever is greater. By January 1, 2030, Level 2 (or faster) electric vehicle charging stations shall be installed for 25% of the employee parking spaces required.
- **PDF-DES-5: Sustainable Energy, Waste, and Water Design Measures.** The Project Applicant or successor in interest shall implement the following measures:
  - The Project's landscape plan shall emphasize drought-tolerant plants and use water-efficient irrigation techniques.
  - All heating, cooling, lighting, and appliance fixtures shall be Energy Star-rated.
  - All fixtures installed in restrooms and employee break areas shall be U.S. Environmental Protection Agency (EPA) WaterSense certified or equivalent.
  - 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.
  - Storage areas shall be provided for recyclables and green waste, as well as food waste storage if a pick-up service is available.
  - Buildings shall include high-efficiency particulate air (HEPA) filtration systems within in all warehouse facilities.
  - The roof shall provide R-30 insulation to decrease overall energy consumption and increase occupant comfort.
- **PDF-DES-6: Design of Ingress/Egress Points.** Entry gates into the loading dock/truck court areas shall be sufficiently positioned to ensure that all truck and other vehicles are contained on site and inside the property line. Queuing, or circling of vehicles, on public streets immediately pre- or post-entry to the Project shall be strictly prohibited unless queuing occurs in a deceleration lane or right turn lane exclusively serving the Project site.
- **PDF-DES-7: Measures to Reduce the Urban Heat Island Effect.** The following measures shall be implemented to reduce the urban heat island effect:
  - The Project's roof structures shall be designed to include "cool roof" materials with a minimum aged reflectance and thermal emittance values that are equal to or greater than those specified in the current edition of CALGreen, Table A5.106.11.2.3 for Tier 1 standards.
  - Sufficient shade trees shall be provided throughout the Project site so that at least 30% of the automobile parking areas will be shaded within 15 years after Project construction is complete (excluding the truck courts where trees cannot be planted due to interference with truck maneuvering).

Construction

- **PDF-CON-1: Heavy-Duty Off-Road Construction Equipment Requirements/Restrictions.** During Project construction, all internal combustion engines/construction equipment greater than 150 horsepower operating on the Project site shall meet U.S. EPA-certified Tier 4 Interim emissions standards. The Project Applicant or successor in interest shall include this requirement in applicable bid documents, purchase orders, and contracts with successful contractors. Successful contractors must demonstrate the ability to supply the compliant construction equipment for use prior to any ground-disturbing and construction activities. An exemption from these requirements may be granted by the Town of Apple Valley in the event

that the Project Applicant or successor in interest documents that equipment with the required tier is not reasonably available and corresponding reductions in criteria air pollutant emissions are achieved from other construction equipment.[4] Before an exemption may be considered by the Town of Apple Valley, the Project Applicant or successor in interest shall be required to demonstrate that at least two construction fleet owners/operators in the High Desert and San Bernardino Region were contacted and that those owners/operators confirmed Tier 4 Interim or better equipment could not be located within the High Desert and San Bernardino Region.

- **PDF-CON-2: Provision of Electrical Infrastructure for Construction and Use of Electric Construction Equipment.** After the grading phase of Project construction, the Project Applicant or successor in interest shall provide temporary electrical hook ups to the power grid, rather than diesel-fueled generators, for contractors' electric construction tools, such as saws, drills, and compressors. The use of diesel-fueled generators for on-site construction activities shall be prohibited unless electrical infrastructure is not yet available on the Project site. Diesel-fueled generators may be used for off-site construction work. All off-road equipment with a power rating below 19 kilowatts (e.g., plate compactors, pressure washers) used during Project construction must be electric-powered. The Project Applicant or successor in interest shall include these requirements in applicable bid documents, purchase orders, and contracts with successful contractors.
- **PDF-CON-3: Construction Equipment Idling Restrictions.** The idling of heavy construction equipment for more than 5 minutes shall be prohibited. Signage shall be posted throughout the construction site informing construction personnel of the idling time limit. Idling time limits shall be noted in construction specifications. Subject to all other idling restrictions, heavy construction equipment shall not be left in the "on position" for more than 10 hours per day.
- **PDF-CON-4: Construction Haul Truck Requirements.** All haul trucks entering the Project construction site during the grading and building construction phases shall meet California Air Resources Board (CARB) model year 2014 (or newer) engine emission standards. All heavy-duty haul trucks should also meet CARB's lowest optional low-oxides of nitrogen (NO_x) standard.
- **PDF-CON-5: Dust Control Measures.** Comply with all applicable Rules and Regulations of the Mojave Desert Air Quality Management District (MDAQMD), including, but not limited to Rules 401 (Visible Emissions), 402 (Nuisance), and 403 (Fugitive Dust). To ensure compliance with these Rules and Regulations, the Project Applicant or successor in interest shall prepare and submit a Dust Control Plan to the MDAQMD for approval. The Dust Control Plan shall document the best management practices (BMPs) that will be implemented during Project construction to prevent, to the maximum extent practicable, wind and soil erosion. BMPs that will be included in the Dust Control Plan shall include, but are not limited to, the following:
  - Signage compliant with Rule 403 (Attachment B) shall be erected at each Project site entrance prior to the commencement of construction.
  - Use a water truck to maintain moist disturbed surfaces and actively spread water during visible dusting episodes to minimize visible fugitive dust emissions. If the Project site has exposed sand or fines deposits, or if the Project exposes such soils through earthmoving, chemical stabilization or covering with a stabilizing layer of gravel will be required to eliminate visible dust/sand from the sand/fines deposits.

[4] For example, if a Tier 4 Interim piece of equipment is not reasonably available at the time of construction and a lower tier equipment is used instead, another piece of equipment could be upgraded from a Tier 4 Interim to a higher tier (i.e., Tier 4 Final) or replaced with an alternative-fueled (not diesel-fueled) equipment to offset the emissions associated with using a piece of equipment that does not meet Tier 4 Interim standards.

- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
- All perimeter fencing shall be wind fencing or the equivalent, to a minimum of four feet of height or the top of all perimeter fencing. The Project Applicant or successor in interest shall maintain the wind fencing as needed to keep it intact and remove windblown dropout. This wind fencing requirement may be superseded by local ordinance, rule, or Project-specific biological mitigation prohibiting wind fencing.
- All maintenance and access vehicular roads and parking areas shall be stabilized with chemical, gravel, or asphaltic pavement sufficient to eliminate visible fugitive dust from vehicular travel and wind erosion. The Project Applicant or successor in interest shall take actions to prevent Project-related track out onto paved surfaces and clean any Project-related track out within 24 hours. All other earthen surfaces within the Project area shall be stabilized by natural or irrigated vegetation, compaction, chemical, or other means sufficient to prohibit visible dust from wind erosion.
- Obtain MDAQMD permits for any miscellaneous process equipment that may not be exempt under MDAQMD Rule 219 including, but not limited to, internal combustion engines with a manufacturer's maximum continuous rating greater than 50 brake horsepower.

- **PDF-CON-6: Construction Waste Recycling and Management.** Consistent with Section 5.408.1 of the CALGreen Code Part 11, a minimum of 65 percent of the nonhazardous construction and demolition waste shall be recycled and/or salvaged for reuse.
- **PDF-CON-7: Architectural Coating Requirements.** Architectural and industrial maintenance coatings (e.g., paints) applied on the Project site shall have volatile organic compound levels of less than 10 grams per liter.
- **PDF-CON-8: Construction Logs.** The Project's construction manager shall maintain on the construction site construction logs detailing the following:
  - An inventory of construction equipment, maintenance records, and datasheets, including design specifications and emission control tier classifications;
  - Verification that construction equipment operators have been advised of idling time limits and photographic evidence that signage with idling time limits have been posted around the construction site; and
  - Evidence that construction contractors have been provided with transit and ridesharing information for construction workers.

  Construction logs shall be made available in the event that local, regional, or state officials (e.g., officials from the Town of Apple Valley, MDAQMD, or CARB) conduct an inspection at the Project site.

Operation

- **PDF-OP-1: 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 equipment. This requirement shall apply to indoor and outdoor equipment such as forklifts, handheld landscaping equipment, yard equipment, office appliances, etc. The building manager or their designee shall be responsible for enforcing these requirements.
- **PDF-OP-2: Truck Requirements and Restrictions.** 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:

- Only haul trucks meeting CARB model year 2010 (or newer) engine emission standards shall be used for the on-road transport of materials to and from the Project site. In addition, tenants shall be in, and monitor compliance with, all current air quality regulations for on-road trucks including CARB's Heavy-Duty (Tractor-Trailer) Greenhouse Gas Regulation, Periodic Smoke Inspection Program, and the Statewide Truck and Bus Regulation. The building manager or their designee shall be responsible for enforcing these requirements.

- **PDF-OP-3: Idling Time Restriction.** 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:
  - Upon commencement of operations, the tenant/operator of the Project shall be required to restrict truck idling on site to a maximum of 3 minutes, subject to exceptions defined by the CARB's commercial vehicle idling requirements. The building manager or their designee shall be responsible for enforcing this requirement.
- **PDF-OP-4: Anti-Idling Implementation Measures.** The following measures shall be implemented to reduce air pollutant emissions from idling:
  - **Signage.** Legible, durable, weather-proof signs shall be placed at truck access gates, loading docks, and truck parking areas that identify the Project's three-minute idling restriction. At a minimum, each sign shall include: (1) instructions for truck drivers to shut off engines when not in use; (2) instructions for drivers of diesel trucks to restrict idling to no more than 3 minutes once the vehicle is stopped, the transmission is set to "neutral" or "park," and the parking brake is engaged; (3) telephone numbers of the building facilities manager and CARB to report violations; and (4) that penalties apply for violations. Prior to the issuance of an occupancy permit, the Town of Apple Valley shall conduct a site inspection to ensure that the signs are in place.
  - **Efficient Load Management.** The facility operator(s) shall be required to train managers and employees on efficient scheduling and load management to eliminate unnecessary queuing and idling of trucks.
  - **Anti-Idling Training.** Tenants and operators on the Project site shall ensure that site enforcement staff in charge of keeping the daily log and monitoring for excess idling will be trained/certified in diesel health effects and technologies, for example, by requiring attendance at CARB-approved courses (such as the free, one-day Course #512).
- **PDF-OP-5: Truck Routing Plan.** The Project Applicant or successor in interest shall establish and submit for approval to the Town of Apple Valley a Truck Routing Plan that provides for routes between the Project site and the State Highway System. The Truck Routing Plan shall include measures, such as signage, pavement markings, and enforcement, for preventing truck queuing, circling, stopping, and parking on public streets. The Truck Routing Plan shall make every effort to avoid passing sensitive receptors, to the greatest extent possible, unless otherwise superseded by an applicable truck routing ordinance adopted by the Town of Apple Valley. The tenant/operator of the Project shall be responsible for enforcement of the Truck Routing Plan. A revised plan shall be submitted to the Town of Apple Valley prior to a business license being issued by the Town of Apple Valley for any new tenant/operator of the Project site. The revised plan shall expand upon the original Truck Routing Plan and describe the operational characteristics of the use of the tenant/operator, including, but not limited to, hours of operations, types of items to be stored within the building, and whether any modifications to the Project's designated truck routes are necessary. The Town of Apple Valley shall have discretion to determine if changes to the Truck Routing Plan are necessary including any additional measures to alleviate truck routing and parking issues that may arise during the life of the Project. Signs and drive aisle pavement markings shall clearly identify the on-site circulation pattern to minimize unnecessary on-site vehicular travel.

- **PDF-OP-6: Transportation Demand Management Plan.** For occupants with more than 250 employees, a Transportation Demand Management (TDM) program to reduce employee commute vehicle emissions shall be established, subject to review and approval by the Town of Apple Valley. The TDM plan shall apply to Project tenants through tenant leases. The TDM plan shall discourage single-occupancy vehicle trips and encourage alternative modes of transportation such as carpooling, taking transit, walking, and biking. Examples of trip reduction measures may include, but are not limited to:
  - Transit passes
  - Car-sharing programs
  - Telecommuting and alternative work schedules
  - Ride sharing programs
- **PDF-OP-7: Yard Sweeping to Reduce Fugitive Dust.** 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:
  - Yard and parking area sweeping shall be periodically conducted to minimize dust generation from the Project site. The building manager or their designee shall be responsible for enforcing this requirement.
- **PDF-OP-8: 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 CEQA.
- **PDF-OP-9: Provision of Information Regarding Programs to Reduce Emissions from Trucks.** Prior to tenant occupancy, the Project Applicant or successor in interest shall provide documentation to the Town of Apple Valley demonstrating that occupants/tenants of the Project site have been provided informational documentation regarding:
  - Funding opportunities that provide incentives for using cleaner-than-required engines and equipment, such as the Carl Moyer Program and Voucher Incentive Program.
  - The U.S. EPA SmartWay Program, which assists freight shippers, carriers, logistics companies, and other stakeholder partner with the U.S. EPA to measure, benchmark, and improve logistics operations and reduce air pollutant emissions from the transport of cargo.
- **PDF-OP-10: Provision of Information Regarding Reducing Emissions from Area and Energy Sources.** Prior to tenant occupancy, the Project Applicant or successor in interest shall provide documentation to the Town of Apple Valley demonstrating that occupants/tenants of the Project site have been provided informational documentation regarding:
  - Information regarding energy efficiency, energy-efficient lighting and lighting control systems, energy management, and existing energy incentive programs.
  - Information regarding and a recommendation to use cleaning products that are water-based or containing low quantities of volatile organic compounds.
  - Information regarding and a recommendation to use electric or alternatively fueled sweepers with HEPA filters.
- **PDF-OP-11: Fire Pump Requirements.** All diesel-fueled fire pumps shall meet U.S. EPA-certified Tier 4 Interim emissions standards, at a minimum.

3.4.3 Access and Circulation

Access to the Cordova Complex site would be via Dachshund Avenue to the west, Navajo Road to the east, and Cordova Road to the north (see Figure 3-4 above). Two driveways would be provided from Dachshund Avenue, 27 feet and 40 feet in width. Two driveways would be provided from Navajo Road, both 40 feet in width. Three driveways would be provided from Cordova Road, 27 feet, 40 feet, and 52 feet in width. Paved passenger vehicle parking areas would be provided east and west of the building and would include EV-ready and accessible vehicle spaces consistent with Americans with Disabilities Act (ADA) design standards. Tractor-trailer stalls and loading docks would be provided to the north and south of the warehouse building. In total, the Cordova Complex would provide approximately 266 loading dock positions, 692 tractor-trailer stalls, and 614 passenger vehicle spaces.

Access to the Quarry at Pawnee site would be via Flint Road along the eastern site boundary and Cordova Road at the southwestern corner of the site (see Figure 3-5 above). Three driveways would be provided from Flint Road (two at 40 feet wide and one at 36 feet wide) and one driveway would be provided from Cordova Road (40 feet wide). Paved passenger vehicle parking areas would be provided north and east of the building and would include EV-ready and ADA accessible vehicle spaces. Tractor-trailer stalls and loading docks would be provided to the east and west of the building. In total, the Quarry at Pawnee warehouse would provide approximately 235 loading dock positions, 549 tractor-trailer stalls, and 689 passenger vehicle spaces.

3.4.4 Utilities

Domestic Water

Domestic water to serve the Project would be provided by Liberty Utilities. New on-site water connections would tie into the existing water infrastructure in adjacent roadways. An existing 12-inch potable water line is located along Cordova Road with available connections located east of Navajo Road at the intersection of Quarry and Flint roads. Within the Cordova Complex site, there would be 2-inch water lines that would tie into the existing water line within Cordova Road. Within the Quarry at Pawnee site, there would be 2-inch water lines that would tie into an existing 12-inch water line within Quarry Road and an existing 12-inch water line within the unnamed road to the west of the site.

Sanitary Sewer

Wastewater collection services would be provided by the Town's Department of Public Works Wastewater Division. The Project would include construction of sewer facilities that would eventually discharge into the existing manhole at the intersection of Johnson Road and Navajo Road. New on-site wastewater utility connections would tie into the existing utility infrastructure in adjacent roadways. The Project would include 6-inch on-site sewer lines within the Cordova Complex site that would connect to a new 8-inch sewer line within Navajo Road, and 8-inch on-site sewer lines within the Quarry at Pawnee site that would connect to a new 8-inch sewer line within Cordova Road.

Storm Drainage

Stormwater services would be provided by the Town. The Project sites are currently vacant and undeveloped with no existing stormwater collection facilities. No existing stormwater infrastructure is present along roadways surrounding the sites, including Cordova Road, Dachshund Road, Doberman Street, and Navajo Road. A new stormwater drainage system would be constructed to collect, treat, and infiltrate on-site stormwater. Storm

drainpipes (ranging from 18 inches to 84 inches in diameter) would be constructed to divert stormwater to storage basins on site to infiltrate stormwater underground. On the Cordova Complex site, an underground storage basin would be located beneath the parking lot on the northern edge of the site, and three aboveground detention basins would be located along the southwestern portion of the site, providing a total volume of 833,071 cubic feet of storage and infiltration. On the Quarry at Pawnee site, one aboveground detention basin would be located along the southern edge of the site, providing a total volume of 290,011 cubic feet of storage and infiltration.[5] No off-site storm drain infrastructure would be needed.

During rain events, water from the building's roof and paved areas would flow towards roof drains and downspouts that would drain to paved areas. These flows would be directed towards a series of gutters and catch basins. Catch basins would include best management practice (BMP) features that would treat stormwater and filter trash and debris and separate oils from water. Catch basins would be connected via underground storm drainpipes to a belowground stormwater detention tank that would retain stormwater during storm events and meter the flows to the aboveground detention basins within the Project sites. The detention basins would feature amended soils and bases to allow for stormwater to infiltrate and recharge the underlying groundwater basin. The on-site stormwater drainage system would capture and attenuate stormwater consistent with Town and San Bernadino County stormwater requirements, including requirements in the San Bernardino County Hydrology Manual and Mojave Watershed Technical Guidance. Consistent with these requirements, the stormwater system would treat flows collected under a 2-year design storm and would attenuate flows for a 100-year design storm. For storms above the 2-year design storm, during which the proposed infiltration basins reach their capacity, excess flows would overflow to a proposed storm drain, channel, or existing natural drainage course for off-site flow conveyance, consistent with existing hydrological patterns.

3.4.5 Operations

The Project would operate as a high-pile storage warehouse for the storage and distribution of manufactured goods/materials with ancillary office uses. No refrigeration for cold storage is assumed. Tenants have not yet been identified; however, business operations would be expected to be conducted primarily within the warehouse buildings, with the exception of ingress and egress of trucks and passenger vehicles accessing the site; passenger and truck parking; 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. It is anticipated that the facilities would be operated 24 hours a day, 7 days a week.

Because future Project tenants are not known, the number of jobs the Project would generate cannot be precisely determined. Thus, for purposes of this analyses, employment estimates were calculated using employment density factors reported by the Southern California Association of Governments (SCAG), derived from median employees per acre and median floor area ratios. SCAG estimates that for every 2,111 sf of warehouse space in the County, the number of jobs supported is one employee (SCAG 2001). Based on this assumption, the Cordova Complex warehouse would support an estimated 739 employees, and the Quarry at Pawnee warehouse would support an estimated 693 employees, for a Project total of approximately 1,432 employees.[6]

[5] The storm drain facilities have been oversized to accommodate slower infiltration; therefore, the volumes of storage and infiltration differ from the basin capacities shown on the Project plans.

[6] The traffic analysis assumes a slightly larger warehouse building for the Quarry at Pawnee site resulting in a higher estimate of employees.

3.5 Off-Site Improvements

To accommodate the Project, improvements to water, wastewater, electrical, and telecommunications infrastructure, as well as improvements to roadways, would be required outside of the Project boundaries. The following describes the required off-site improvements.

3.5.1 Utilities

Because the Project area is currently undeveloped, new off-site utility connections, including domestic water, sanitary sewer, and electricity would be required to tie into the existing utility infrastructure in the Project vicinity. Figure 3-6 depicts off-site utility improvements that would serve the Project. These utilities are described in detail as follows.

Domestic Water

As part of the Project, a new water line would be installed within Flint Road extending between Quarry Road and Cordova Road along the eastern boundary of the Quarry at Pawnee site, and within Cordova Road extending between the southwestern boundary of the Quarry at Pawnee site to the northeastern boundary of the Cordova Complex site. Two lateral water line connections would also be installed from the Quarry at Pawnee site to connect to existing infrastructure within Quarry Road. The proposed warehouse buildings would connect laterally to these proposed off-site water line improvements.

Sanitary Sewer

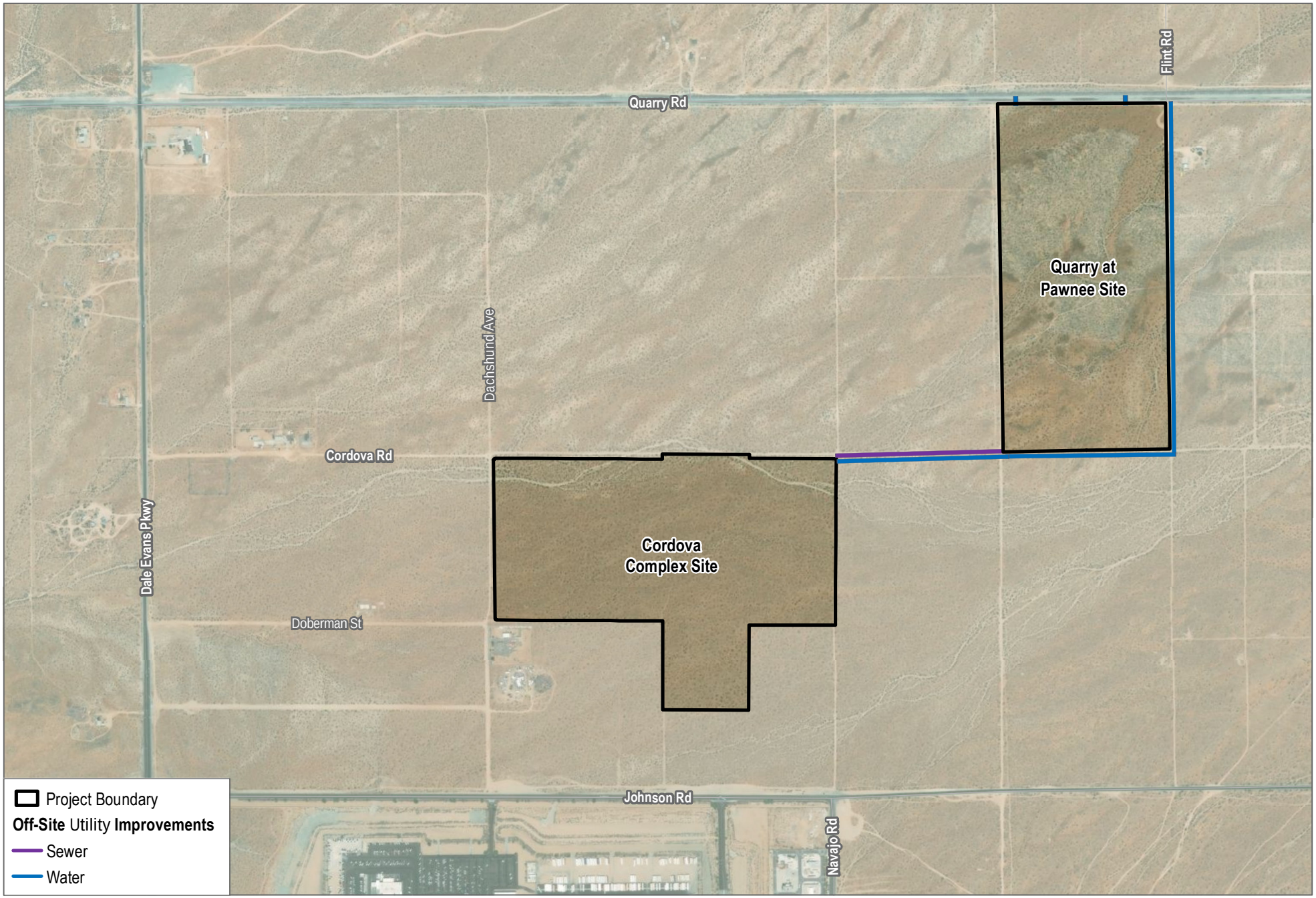
As part of the Project, a new sewer line would be installed within Cordova Road extending between the southwestern boundary of the Quarry at Pawnee site to the northeastern boundary of the Cordova Complex site. The proposed warehouse buildings would connect laterally to these proposed off-site sewer line improvements.

Electric and Telecommunication Facilities

Upgrades would be required with respect to electric power and telecommunication facilities (i.e., internet). These utilities would be part of a dry utility package that would be installed on site and would connect to the existing infrastructure fronting the Project sites to provide service to the Project. Aboveground electrical lines would be extended to serve the Project sites. The Project would not use natural gas.

3.5.2 Roadways

To facilitate adequate on-site circulation, sufficient site access for both passenger vehicles and trucks, and ensure efficient off-site circulation on nearby roadway facilities, the Project would include off-site roadway improvements in the Project vicinity. The majority of roadways in the vicinity of the Project sites are unpaved, except for Dale Evans Parkway, Quarry Road, Johnson Road, and Navajo Road south of Johnson Road, which are paved roads with unimproved dirt shoulders. Cordova Road, Dachshund Road, Doberman Street, and Navajo Road are graded and unpaved roads. As part of the Project, roadway improvements include widening and paving Dale Evans Parkway, Cordova Road, Dachshund Avenue, Doberman Street, Navajo Road, and Flint Road, as shown on Figure 3-7.



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

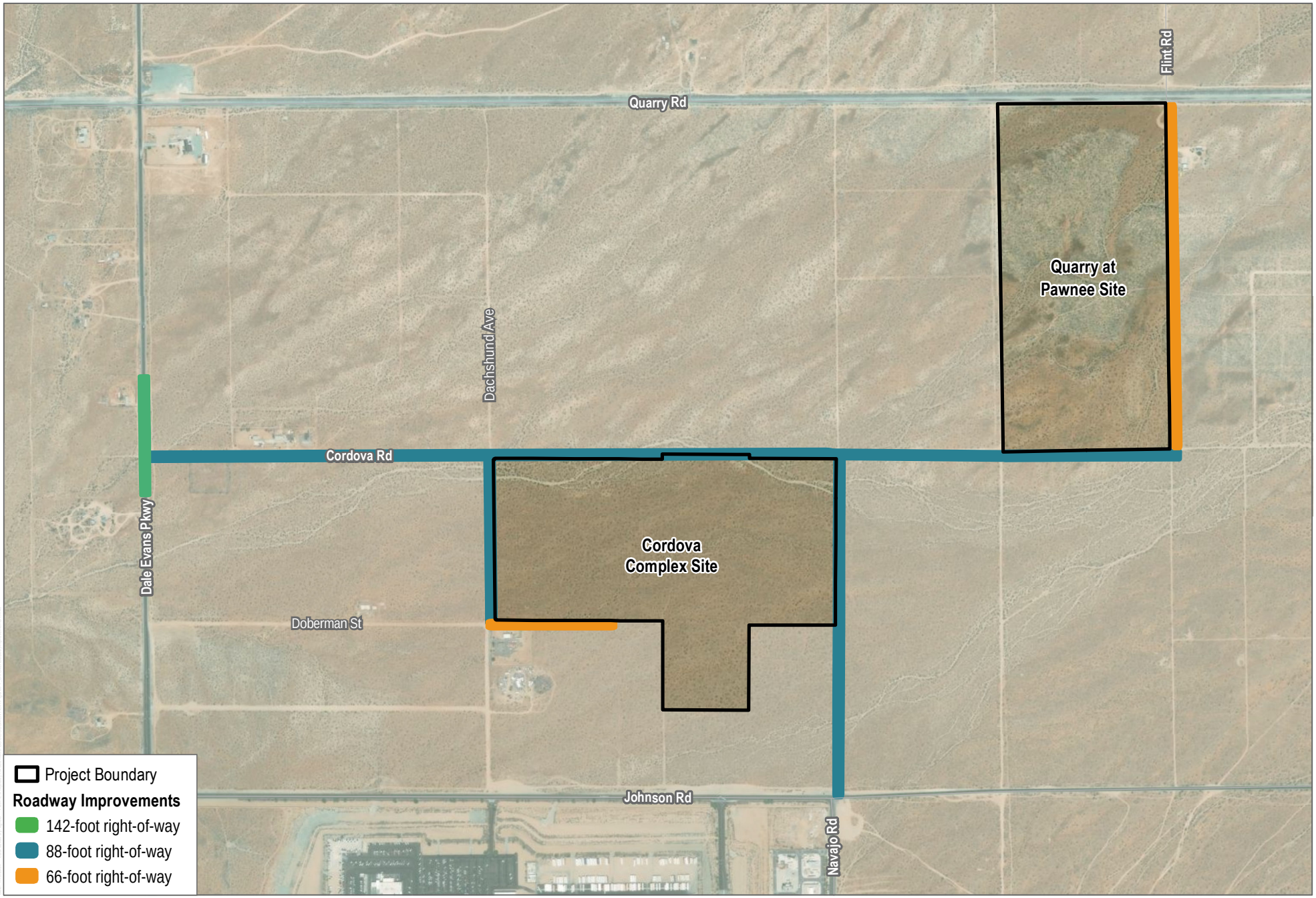
DUDEK

0 500 1,000 Feet

FIGURE 3-6

Off-Site Utility Improvements

Cordova Complex and Quarry at Pawnee Warehouse Project



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

DUDEK

0 500 1,000 Feet

FIGURE 3-7

Off-Site Roadway Improvements

Cordova Complex and Quarry at Pawnee Warehouse Project

Roadway improvements are summarized as follows:

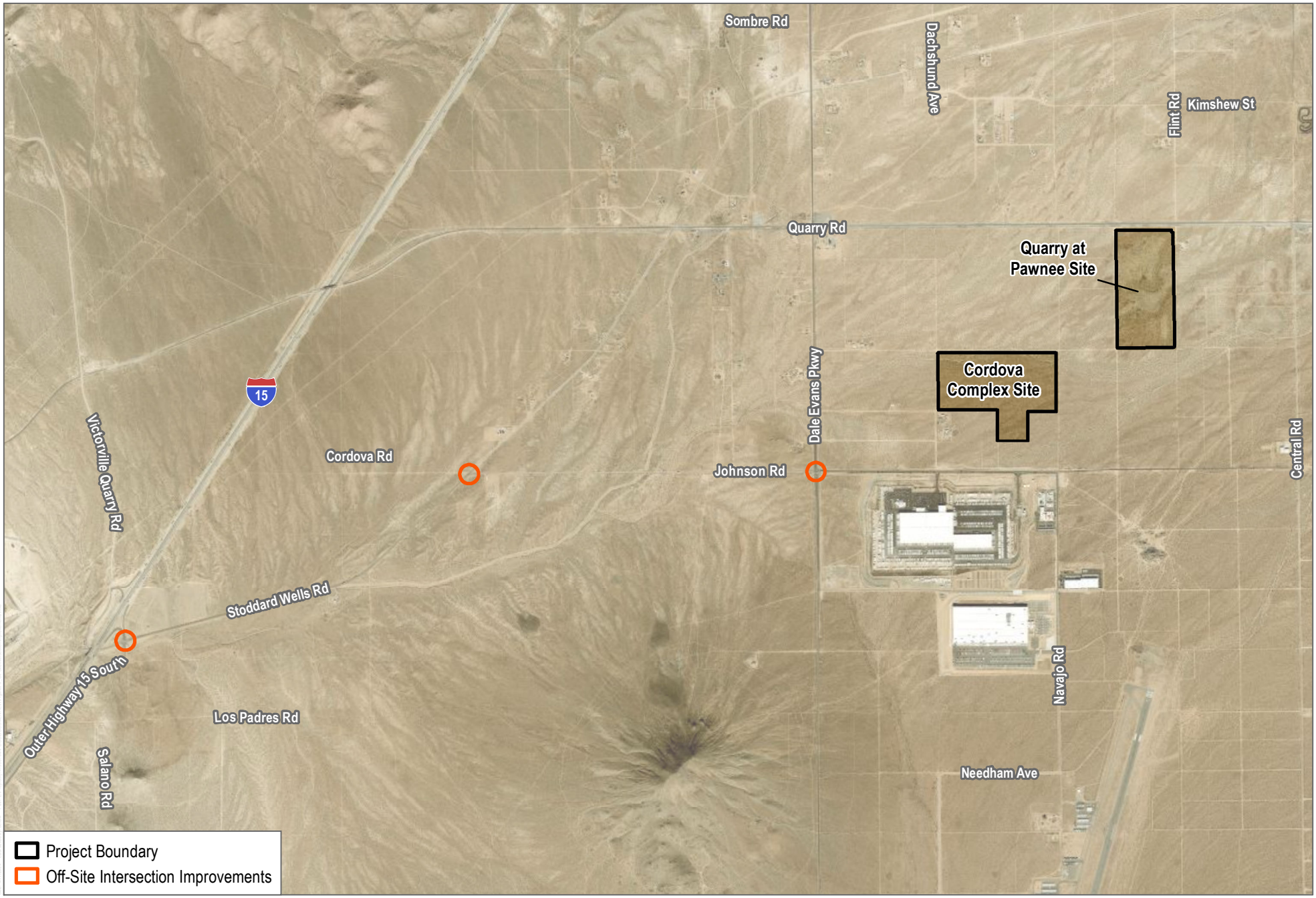
- **Dale Evans Parkway.** The Project would include the widening of Dale Evans Parkway from 12 feet to 20 feet at its intersection with Cordova Road to construct a 12-foot left-turn lane for 660 feet north of the intersection, and a 12-foot right-turn lane for 360 feet south of the intersection.
- **Cordova Road.** The Project would include the construction of Cordova Road starting at the eastern edge of the existing pavement surface at its intersection with Dale Evans Parkway and extending to its intersection with Flint Road. The improvements to Cordova Road would span both Project sites, for a total length of 6,625 feet.
- **Dachshund Avenue.** The Project would include construction of Dachshund Avenue extending for a length of 1,325 feet between the southern ROW boundary of Cordova Road and the southern ROW boundary of Doberman Street.
- **Navajo Road.** The Project would include construction of Navajo Road, starting at its intersection with Cordova Road and extending to its intersection with Johnson Road for a total length of 2,554 feet.
- **Doberman Street.** The Project would include extension of Doberman Street into Doberman Road, which would span a length of approximately 990 feet from the Doberman Street/Dachshund Avenue intersection to the east and terminating in a cul-de-sac, along the southwestern edge of the Cordova Complex site.
- **Flint Road.** The Project would include construction of Flint Road extending from the southern ROW of Quarry Road to the southern ROW of Cordova Road along the eastern boundary of the Quarry at Pawnee site.

In addition, as conditions of approval, the Project would be required to implement the recommended project-specific and future long-term roadway improvements described in the Traffic Impact Analysis Reports (Appendix C) prepared for the Project and summarized in Table 3-1 and shown on Figure 3-8. All of these improvements occur within the existing rights-of-way.

Table 3-1. Project and Future Intersection Improvements

Intersection	Project Improvements	Future Project Improvements
Dale Evans Parkway and Johnson Road	▪ Reconfigure all approaches ▪ If Cordova Complex and Quarry at Pawnee warehouses are constructed concurrently, provide an additional through lane at westbound approach and widen Johnson Road's east leg departure approach	Install a traffic signal
Stoddard Wells Road and Johnson Road	▪ Reconfigure northbound and westbound approaches ▪ If Cordova Complex and Quarry at Pawnee warehouses are constructed concurrently, convert intersection to all-way-stop control and reconfigure westbound, northbound, and southbound approaches	▪ Convert intersection to all-way-stop control (preferred) and reconfigure westbound, northbound, and southbound approaches, or ▪ Install traffic signal and reconfigure westbound, northbound, and southbound approaches
Stoddard Wells Road and I-15 Northbound Ramps	▪ Convert intersection to all-way-stop control ▪ Widen eastbound, westbound, and southbound approaches to accommodate turn lanes ▪ Reconfigure all approaches	Install a traffic signal and reconfigure westbound and southbound approaches

Note: See Appendix C for detailed descriptions of intersection improvements.



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

DUDEK

0 0.5 1 Miles

FIGURE 3-8

Off-Site Intersection Improvements

Cordova Complex and Quarry at Pawnee Warehouse Project

3.6 Maximum Disturbance Footprint

To account for the maximum potential disturbance associated with all on-site and off-site improvements, a maximum disturbance footprint has been estimated for the Project. This maximum disturbance footprint was developed by accounting for all known improvements. In some cases, the exact location of some off-site utility lines within rights-of-way (ROWs) has not yet been confirmed with a high degree of certainty. Thus, to account for the possible movement of utility lines (which may occur if there are existing utility lines that conflict with the currently proposed alignments), the maximum disturbance area includes the full ROW in which utility and roadway improvements may occur. The maximum disturbance footprint assumed for on-site improvements is 162.1 acres, and for off-site improvements is 36.3 acres, for a total maximum disturbance footprint of 198.4 acres. For the purposes of this EIR, it is conservatively assumed that the Project may result in ground disturbance within the full potential maximum disturbance footprint.

3.7 Construction, Phasing, and Schedule

Construction of the Cordova Complex and Quarry at Pawnee warehouse buildings is anticipated to commence in Fall 2024 (if the Project is approved) with an approximately 18-month construction duration, including all on-site and off-site improvements. Construction activities would generally occur across six phases: site preparation (e.g., vegetation clearing, grubbing, discing), grading, utility installation (trenching), building construction, paving, and architectural coating. With the exception of architectural coating (which would only occur on the Project sites), all phases would occur both on the Project sites and include the off-site roadway and utility improvements.

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

- Site preparation and grading: September 2024 – November 2024
- Utility installation/off-site improvements: November 2024 – December 2025
- Building construction: November 2024 – December 2025
- Paving: December 2025 – January 2026
- Architectural coating: January 2026 – March 2026

Construction activities would include site clearing and grading, trenching for utilities, building construction, roadway expansions, paving, and landscaping. It is assumed both warehouses would be constructed concurrently. Exterior building walls for both warehouses would involve concrete tilt-up construction and would be approximately 10 inches thick with accentuated office corners with high performance storefront systems.

Earthwork required for construction on the Cordova Complex site would require approximately 287,500 cubic yards of cut and 359,500 cubic yards of fill, for a net fill of 72,000 cubic yards of material, and the Quarry at Pawnee site would require 423,000 cubic yards of cut and 351,000 cubic yards of fill, for a net cut of 72,000 cubic yards of material. Earthwork materials across the two sites would be balanced during the grading phase, with cut from the Quarry at Pawnee site being used as fill on the Cordova Complex site.

The six phases of construction are described in detail below and activities are differentiated between activities on the Project site and activities occurring within the off-site roadway and utility improvement alignments.

3.7.1 Site Preparation and Grading

Site preparation generally refers to the removal of debris, organic materials, deleterious materials, and loose and unusable soils from a site prior to grading. During the site preparation phase, construction crews would use tractors/mowers, loaders, backhoes, and rubber-tired dozers to uproot and remove vegetation. Removed vegetation would be chipped/mulched and would be loaded into trucks that would transport the organic waste to an approved disposal facility. In addition, the Project would involve the relocation of certain plant specimens pursuant to Town and state regulations. For these affected plant specimens, construction crews would excavate the specimens from their current locations and stockpile them in a storage area that would be approved by a certified arborist or desert native plant expert. Specimens would be removed from their current locations with the use of a front-end loader, hydraulic tree spade, or through the use of hand tools and manual digging. Additional detail about this process is provided in Section 4.3, Biological Resources, and the Joshua Tree Preservation, Protection, and Relocation Plan, and Desert Native Plant Relocation Plan for the Project (see Appendix C, Biological Resources Technical Report). Plant specimens within the Project site that cannot be transplanted would be removed in the same manner as other trees and shrubs on the site.

The same site preparation activities described above would occur for the off-site road and utility improvements. It is assumed these activities would occur within the full extent of the public ROW. Given that the majority of these areas are already dirt roads, site preparation activities would largely be limited to removing vegetation and debris on the edges of the existing roadways, up to the edge of the public ROW. Where utility lines would be installed within existing paved roadways, no site preparation activities would occur.

Concurrent with the site preparation phase, grading would occur. Grading generally refers to the process of using heavy machinery to alter the surface of a site to obtain a specified slope. Grading would involve the use of several pieces of heavy machinery, including bulldozers, track-hoe excavators, front-end loaders, dump trucks, motor graders, water trucks, and rollers for compaction. All grading would be done in accordance with a formal stormwater pollution prevention plan for the Project, which would employ best management practices, such as using hay bales and diversion ditches, to control stormwater runoff during construction.

For the areas where off-site roadways and utilities would be constructed, the same grading activities described above for the Project site would occur directly within the footprint of proposed roadway improvements. All grading activities would occur within the footprint of areas that have already been disturbed as part of the site preparation phase.

3.7.2 Utility Installation and Building Construction

After the site has been graded, underground utility lines would be installed, and the buildings would be constructed. Installation of lateral utility lines would involve trenching using a backhoe, the placement of pipelines using a crane or tractors/loaders/backhoes, and the backfilling of the trenches. Subsequently, the building foundations would be poured, and the buildings would be constructed. The proposed buildings would be constructed with a tilt-up construction method. With tilt-up construction, slabs of concrete, which comprise load-bearing sections of a building envelope or elevation, are cast horizontally on a concrete slab-on-ground. The slabs are then lifted (tilted) with a crane after the concrete has reached sufficient strength. The crane sets the panels, most often in a vertical orientation, on prepared foundations, thus forming the desired wall line from a series of consecutive panels standing next to each other. Roof structures and other internal features would subsequently be installed.

All off-site utilities would be installed within the footprints of existing roadways. These utilities would be installed in the same manner as the utilities on the Project site.

3.7.3 Paving

Following building construction, roadways and pavement surfaces would be constructed using pavers, paving equipment, and rollers. All parking spaces would be striped.

During this phase, asphalt trenching would be required to install the water and sewer infrastructure along roadways. During construction of off-site utilities, a traffic control plan would be implemented to ensure sufficient circulation in the area is maintained. Once the infrastructure has been installed, asphalt trenching repair that complies with the Town's standards would be conducted to return affected street areas back to operating conditions.

3.7.4 Architectural Coating

Architectural coatings would be applied to the Project site using paint sprayers powered by compressors. Coatings would be applied manually by construction crews. Landscaping would also be installed during this phase.

No architectural coatings would not be required for the off-site improvements.

3.8 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 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
- Apple Valley Fire Protection District

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

Where applicable, COAs and other applicable federal, state, and local regulations, codes, laws, and requirements to which the Project is required to comply that would result in the reduction or avoidance of an environmental impact are identified and discussed in each section of Chapter 4, Environmental Analysis, of this EIR. In addition, the Project is required by state law to comply with the California Building Standards Code and its CALGreen component (Title 24), which includes mandatory building standards aimed at reducing energy use.

3.9 Requested Actions

3.9.1 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 California Code of Regulations 15124[d]).

Discretionary Entitlements

- **Site Plan Review.** Project implementation would require processing of Site Plan Reviews for each site in order to ensure compliance with all Municipal Code regulations and requirements for Project design. The Planning Commission will consider approval of the Site Plan Review applications.
- **Tentative Parcel Maps.** Project implementation would require processing of separate Tentative Parcel Maps to reorganize and consolidate each site to accommodate a single building on each site. The Planning Commission will consider approval of the Tentative Parcel Maps.
- **Consider Certification of EIR.** The Planning Commission will certify or reject this EIR, along with appropriate CEQA Findings and the mitigation monitoring and reporting program.

Ministerial Entitlements

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

3.9.2 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 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 may also be required to modify existing drainages that are present on the Project site.
- **Mojave Desert Air Quality Management District.** An **Authority to Construct** and/or **Permit to Operate** would be required for any stationary sources of air pollution.

- **Regional Water Quality Control Board.** A **Section 401 Water Quality Certification** or **Waste Discharge Requirements Permit** from the Regional Water Quality Control Board (RWQCB) may be required to modify existing drainages that are present on the Project site.
- **U.S. Army Corps of Engineers.** A **Section 404 Permit** from the U.S. Army Corps of Engineers (USACE) may be required to modify existing drainages that are present on the Project site.

3.10 References

APA (American Planning Association). 2003. *Jobs-Housing Balance.* Planning Advisory Service Report Number 516.

SCAG (Southern California Association of Governments). 2001. Employment Density Study Summary Report. October 31, 2001. Accessed August 31, 2023, at http://www.mwcog.org/uploads/committee-documents/bl5aX1pa20091008155406.pdf.

SCAG. 2021. *Pre-Certified Local Housing Data for the Town of Apple Valley*. Updated April 2021. Accessed September 22, 2023, at https://scag.ca.gov/sites/main/files/file-attachments/apple-valley-he-0421.pdf?1620801830.

Town of Apple Valley. 2009. Apple Valley General Plan. Accessed September 25, 2023, at https://www.applevalley.org/services/planning-division/2009-general-plan.

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4 Environmental Analysis

This chapter of the environmental impact report (EIR) evaluates the potential physical environmental effects of implementing the Cordova Complex and Quarry at Pawnee Warehouse Project (Project). The Town of Apple Valley (Apple Valley or Town) circulated a notice of preparation (NOP) and initial study (IS) beginning on September 1, 2023, with the public review period ending on October 2, 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 EIR. The NOP, IS, and comment letters received during public scoping are contained in Appendix A of this EIR.

Sections 4.1 through 4.12 of this EIR contain the analyses of potential environmental impacts associated with implementation of the Project, and focus on the following topics:

- 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 – Noise
- Section 4.11 – Transportation
- Section 4.12 – 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 topics and are included as technical appendices to this EIR.

Section Organization

The EIR assesses how the Project would impact each of the above-listed resource areas. This EIR refers to the Project site, which encompasses both the Cordova Complex site and Quarry at Pawnee Warehouse site. In some instances, a discussion specific to one of the sites will call out the "Cordova Complex site" for example. However, the analysis factors in both sites and refers to the Project site as a whole unless there is a reason to isolate one of the sites. Each environmental topic addressed in this EIR is presented in terms of the following sections:

- **Existing Conditions:** According to subdivision (a) of Section 15125 of the California Environmental Quality Act (CEQA) Guidelines, an EIR must include a description of the existing physical environmental conditions in the vicinity of the project as they exist at the time when the NOP is published. This "environmental setting" will normally constitute the "baseline condition" against which project-related impacts are compared. This section provides information describing the existing physical 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 existing conditions or baseline that existed when the NOP was sent to responsible agencies and the State Clearinghouse in September 2023.

- **Regulatory Framework:** This section describes federal, state, regional, and local regulations, plans, policies, and ordinances applicable to the Project.
- **Impact Analysis:** This section identifies criteria for determining the significance of Project impacts based on Appendix G of the CEQA Guidelines or from applicable entities that have oversight authority (e.g., Mojave Desert Air Quality Management District). The methodology used to evaluate potential impacts is also described. If applicable, the section presents a discussion of the significance criteria for which no impacts have been identified, as determined in the Project's IS. The section then evaluates and analyzes Project impacts, states the level of significance prior to mitigation, and proposes mitigation measures for significant impacts that would reduce such impacts, if feasible. A statement regarding the level of significance of each impact after mitigation is also included. Cumulative impacts are discussed in each environmental resource section following the discussion of Project-specific impacts.
- **Mitigation Measures and Level of Significance After Mitigation:** At the end of the impact analysis is a discussion of applicable mitigation measures identified to reduce the significance of an impact, if required. This section includes a statement indicating whether the mitigation measure would reduce the impact to a less-than-significant level. A discussion of how the mitigation would reduce the impact is also provided.
- **References:** This section lists the sources cited during preparation of the EIR.

Significance Determinations

In accordance with CEQA, specifically Public Resources Code Section 21068, a "significant effect on the environment" means a substantial or potentially substantial adverse change in the environment. Impacts of the environment on a project or plan (as opposed to impacts of a project or plan on the environment) are beyond the scope of required CEQA review. "[T]he purpose of an EIR is to identify the significant effects of a project on the environment, not the significant effects of the environment on the project." (*Ballona Wetlands Land Trust v. City of Los Angeles* (2011) 201 Cal.App.4th 455, 473.)

The significance thresholds used for each environmental resource topic are presented in each section of this chapter immediately before the discussion of impacts. For each impact described, one of the following significance determinations is made:

- **No Impact.** This determination is made if there is no potential that the Project could affect the resource at issue.
- **Less-than-Significant Impact.** This determination applies if there is a potential for some limited impact on a resource, but the impact is not significant in accordance with the significance standard.
- **Less-than-Significant Impact with Mitigation.** This determination applies if there is the potential for a substantial adverse impact in accordance with the significance standard, but mitigation is available to reduce the impact to a less-than-significant level.
- **Potentially Significant.** This determination applies to those impacts where an environmental effect is identifies that could cause a substantial adverse change in the environment; however, additional information is needed regarding the extent of the impact to make the determination of significance. For CEQA purposes, a potentially significant impact is treated as if it were a significant impact.
- **Significant.** This determination applies to impacts where a substantial adverse change in the physical conditions of the environment would occur. Significant impacts are identified by the evaluation of project effects in the context of specified significance criteria. When available, potentially feasible mitigation measures and/or project alternatives are identified to reduce these effects to the environment.
- **Significant and Unavoidable Impact.** This determination applies to impacts that are significant, and for which there appear to be no feasible mitigation available to substantially reduce the impact.

In determining the level of significance of environmental impacts associated with the Project, the analysis in this EIR assumes that the Project would comply with relevant federal and state laws and regulations; Town General Plan policies, ordinances, other adopted Town documents; and policies, actions, design guidelines and development standards contained in the North Apple Valley Industrial Specific Plan, unless otherwise noted. Therefore, such mandatory policies, ordinances, and standards are not identified as mitigation measures (unless required by the Town or another entity), but rather are discussed as part of the "Regulatory Framework" governing the Project and compliance with these requirements often mitigate potential impacts.

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. 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.

This EIR assesses potential cumulative impacts of the Project in combination with other projects anticipated to occur by the year 2040.[1] The cumulative impacts analysis in this EIR uses a combined "list" and "projections" method, pursuant to 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

[1] This EIR uses the 2040 traffic volume forecasts method by using the countywide transportation model of the San Bernardino County Transit Authority (SBCTA) San Bernardino County Transportation Analysis Model and existing traffic volumes, which reflect past, present, and future developments expected by year 2040. (Additional detail provided in Section 4.12, Transportation and Circulation). Cumulative land use, population, and employment assumptions rely on the Southern California Association of Government's (SCAG's) Connect SoCal projections for year 2040.

Specific Plan. "Reasonably foreseeable" projects are those that have an approved application and have initiated the CEQA process. The projections are regional projections regarding anticipated changes in population and employment.

Each subsection of this chapter includes an analysis of cumulative impacts. The geographic scope of the cumulative impact analysis varies by topic, depending on the nature of potential impacts and where physical changes would occur. Impacts have been assessed at a level of specificity based on available information for each of the components of the Project. Pursuant to CEQA Guidelines Section 15130, an EIR shall discuss cumulative impacts of a project when the project's incremental effect is "cumulatively considerable." As defined in CEQA Guidelines Section 15065, "cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. Where a lead agency is examining a project with an incremental effect that is not cumulatively considerable, a lead agency need not consider that effect significant, but shall briefly describe its basis for concluding that the incremental effect is not cumulatively considerable.

Thus, the cumulative impact analysis methodology in this EIR first involves consideration of whether a potentially significant cumulative impact is created as a result of the combination of the Project together with other projects causing related impacts. When the combined cumulative impact is not significant, the analysis briefly indicates why the cumulative impact is not significant and is not discussed in further detail. When the combined cumulative impact is potentially significant, the discussion continues with an evaluation of whether the Project's contribution to a significant cumulative impact is cumulatively considerable. Cumulative projects considered in the analysis are identified below in Table 4-1.

Table 4-1. Cumulative Projects

Project Name	Location	Total Square Feet	Status	Acres
Inland Empire Logistics Center	Parcel A is southeast of I-15/Outer Highway 15 South and south of Norco Street in Apple Valley; Parcel B is north of I-15 in Victorville	3.9-million-square-foot logistics center	NOP issued September 2023; two Draft EIRs anticipated winter 2024	404.17
Apple Valley 143 - Covington Development	North side of Stoddard Wells Road, 2,500 feet east of I-15 Freeway	2.6-million-square-foot industrial warehousing distribution development	Project approved November 2023	143
Commercial Center	Northeast corner of Central Road and Waalew Road	24,185-square-foot convenience store, retail building, and gas station	Notice of Intent issued November 2023	9.98
The Development at Dale Evans and Lafayette	Southeast corner of Lafayette Street and Dale Evans Parkway	1,207,544 square foot warehouse distribution center	Project approved September 2023	77
1M Warehouse	Northeast corner of Central Road and Lafayette Street	1.1-million-square-foot industrial/warehouse building	Draft EIR released September 2023	67.3
Green Trucking Solutions Cold Storage	Northwest corner of Lafayette Street and Navajo Road	385,004-square-foot cold storage facility	IS/Mitigated Negative Declaration released August 2023	18.7
Apple Valley I-15 Travel Center	North of Stoddard Wells Road and east of I-15 Freeway	Travel center and recreational vehicle park	Project approved July 2023	33.5

4.1 Aesthetics

This section describes existing conditions related to aesthetics, identifies associated regulatory requirements, evaluates potential project and cumulative impacts, and identifies mitigation measures for any significant or potentially significant impacts related to implementation of the Cordova Complex and Quarry at Pawnee Warehouse Project (Project).

No comments regarding aesthetics were received during the scoping period for this environmental impact report (EIR). All scoping comment letters received are provided in Appendix A.

This analysis is based on a review of aerial imagery of the Project site and surrounding area to determine existing uses and visual character, and a review of Project plans including building elevations and renderings.

4.1.1 Existing Conditions

Definitions

Aesthetics and visual resources are natural and cultural landscape features that people see and that contribute to the public's enjoyment of the environment. Visual character is an impartial description of the visible attributes of a scene or object such as form (dominance and scale), line, color, and texture. Visual-character-defining resources and features include elements of the natural, cultural, and built environments, such as landforms, water, vegetation, animals, land uses, buildings, infrastructure, artifacts and art, historic structures or districts, high geometrics, grading, etc. Visual quality is an assessment of what viewers like and dislike about visual resources that compose the visual character of a particular scene. Different viewers may evaluate specific visual resources differently based on their interests. The following subsections provide a description of the existing visual character and quality of the Project site and the larger region in which the Project is located. Scenic vistas are generally defined as an expansive view of highly valued landscape features (e.g., mountain range, lake, or coastline) observable from a publicly accessible vantage point.

Regional Setting

The Town of Apple Valley (Apple Valley or Town) is situated within the Victor Valley/High Desert Region of San Bernardino County (County). The high desert is characterized by diverse vegetative communities and geologic forms, punctuated with small rural communities and larger suburban areas, featuring large areas of sparsely populated land. Natural visual resources in the region include uninterrupted expanses of wide skies and panoramic vistas of distant mountains. 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 Mountains 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.

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, which runs generally southeast to northwest along the Town's western boundary, 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 Mountain and Black Mountain are located to the north of the Town, 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 include those associated with the Mojave River that consist of 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 2009b).

Apple Valley has developed most densely along major roadways, including State Highway 18, which runs southeast to northwest through the Town near its center, approximately 5.5 miles south of the Project site, and Bear Valley Road, which runs east to west through the Town at its southern end. Development is primarily concentrated in the southwestern portion of the Town. The aesthetic character of existing development in the Town and vicinity is varied, with the built form being representative of several different periods of time and various standards of development (Town of Apple Valley 2009b).

Project Setting

The Project site is located in the northern portion of the Town on the outskirts of the developed areas and encompasses two noncontiguous sites located approximately 1,400 feet apart: the Cordova Complex site and the Quarry at Pawnee site. Quarry Road, Central Road, Johnson Road, and Dale Evans Parkway are paved roadway corridors that generally encircle the Project area to the north, east, south, and west, respectively, traversing expanses of undeveloped desert landscape punctuated by sporadic commercial/industrial and residential development. Several unpaved, dirt roads form light-colored bands of exposed, bare soils that cut through the shrublands of the Project area. A rail line runs along Quarry Road to the north of the Project site.

The Project site consists of vacant and undeveloped, relatively flat land characterized by desert landscape consisting of exposed soils, moderate vegetation cover composed of brush, shrub, and grass cover, as well as occasional Joshua trees; the Cordova Complex site contains two Joshua trees and the Quarry at Pawnee site contains eleven Joshua trees. Several small, unvegetated ephemeral drainages that appear to be tributaries to Bell Mountain Wash meander through the sites.

Surrounding land uses and both built and natural elements that form the visual environment in the Project site and area are described as follows:

- **North:** Quarry Road and vacant land. Quarry Road is an east-west, two lane paved roadway that consists of primarily vacant land on both sides of the road. The vacant land is covered by flat desert terrain similar in vegetation to the Project site. Some scattered single-story, ranch-style rural residences are located north of the Project site.
- **East:** Flint Road and vacant land. Flint Road is a north-south, unpaved roadway that primarily consists of vacant land on both sides of the road which is similar to the Project site. A single-story, ranch-style rural residence that appears to be occupied is located directly east of Flint Road.
- **South:** A Walmart Distribution Center and Victor Valley College Regional Public Safety Training Center (approximately 0.1 mile south); Fresenius Medical Care Distribution Center and Big Lots Distribution Center (approximately 0.6 mile south); the Apple Valley Airport (approximately 1.0 mile south).
- **West:** Dachshund Avenue and vacant land. Dachshund Avenue is a north-south, unpaved roadway that primarily consists of vacant land on both sides of the road. Two single-story, ranch-style rural residences that appear to be occupied are located directly adjacent to the Cordova Complex site's southwestern corner.

Scenic Resources and Views

The Town's General Plan Open Space and Conservation Element identifies the Mojave River, surrounding rock outcroppings, knolls, hillsides, mountains, and the natural desert environment as important scenic natural resources with high aesthetic quality (Town of Apple Valley 2009a). Views in the Town include uninterrupted expanses of wide skies and panoramic vistas of distant mountains. The primarily flat topography affords broad, long-range views of the desert landscape framed by mountains. Natural visual resources 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 adjacent hillsides and the natural desert environment (Town of Apple Valley 2009b).

Undisturbed areas of the natural desert environment and the sprawling valley surround the Project site; the Mojave River is located approximately 8 miles to the west of the Project site; the Turtle Mountains are located approximately 2 miles to the north, the Fairview Mountains are located approximately 3 miles to the southeast, the Sidewinder Mountains are located approximately 7 miles to the east, and the Black Mountains are located approximately 4 miles to the northeast; the foothills and elevated terrain within the San Gabriel and San Bernardino Mountains are located between approximately 20 miles to the southwest and southeast, respectively. Because the Project site and its surrounding area contain vast areas of natural desert landscape, the area contains scenic natural resources identified in the General Plan as having high aesthetic quality. Although scattered development, such as light industrial and commercial uses (i.e., Walmart Distribution Center, Big Lots Distribution Center, Fresenius Medical Care Distribution Center, and the Apple Valley Airport), 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 watercourses traverse the Town, including 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 6.5 miles southeast of the Project site beyond Stoddard Wells Road. Given that Bell Mountain Wash is below the grade of the general topography and consists of intervening vegetation, views of this watercourse are not available from the Project site.

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 by desert shrubland vegetation with a few scattered Joshua trees, and disturbed soils where dirt roads cross 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), the County contains one officially designated state scenic highway and 12 eligible scenic highways (Caltrans 2019). Route 38, the County's only officially designated scenic highway, is located approximately 35 miles southeast of the Project site in the San Bernardino National Forest. There are no eligible scenic highways located within Town limits. Route 247 is an eligible scenic highway that is closest to the Project site, located approximately 12 miles east of the Project site, near the Sidewinder Mountains. Route 66, a County-designated scenic route, is located approximately 12 miles northwest of the Project site (County of San

Bernardino 2020). None of the officially designated or eligible state scenic highways or the one County-designated scenic route are visible from the Project site, nor is the Project site visible from the highways.

Light and Glare

The Project site does not have any existing sources of light or glare. Existing sources of light and glare in the immediate vicinity of the Project site are minimal due to the remote and rural setting of the Project site and include vehicular headlights from motorists traveling along roadways in the vicinity, as well as exterior building and security lights at dispersed residences near the Project site. Existing sources of light or glare at the commercial and light industrial uses to the south of the Project site include pole-mounted parking lot lights, streetlights and security lights, building-mounted lights, illuminated signage, reflective building materials, and vehicular headlights.

Visual Character and Quality

The visual resources of the natural environment consist of broad views of undeveloped, sparsely vegetated desert landscape and distant mountainous features. The primarily flat topography creates wide vistas and a sense of openness. Broad views of desert landscape, vegetated with Joshua trees and shrub-steppe vegetation and framed by the mountains, offer moderately high visual quality. The appearance of the natural environment, including topography and vegetation, is moderately intact in this relatively less developed area; however, the irregular pattern of development somewhat degrades the integrity of the natural environment.

The built environment is characterized by sporadic rural residences with a larger cluster of commercial and light industrial development visible to the south. Transportation infrastructure is a dominant visual element forming linear features through flat, paved roadways lined with power lines, unpaved roads forming bands of exposed, disturbed soils through shrublands, and a rail corridor running to the north of the Project site. Development is dispersed among a primarily undeveloped landscape and features neutral-colored buildings, sidewalks and pavement, signage, and ornamental landscaping including trees. All of these built and landscaped elements are sporadic and not highly unified. Development is generally visually subordinate to the surrounding desert landscape and mountain views in the background.

The overall existing visual quality of the Project site and surrounding area is moderate. This rating is based on positive scenic influences, such as Joshua trees, the San Bernardino and San Gabriel Mountains, and open space, juxtaposed with transportation and utility infrastructure and other scattered human development, including residences, warehouses, and other public facilities.

Viewers

The Project site is visible to various viewer groups, including motorists on roadways in the vicinity of the Project site, adjacent neighbors occupying the scattered residential uses near the Project site, and employees and visitors of the commercial and industrial buildings located to the south. Motorists traveling on Dale Evans Parkway, Johnson Road, Central Road, and Quarry Road are provided unobstructed views of the Project site to the west, north, east, and south, respectively. Views of the Project site are also available from local dirt roads (i.e., Flint Road, Navajo Road, Dachshund Road, Cordova Road) visible to motorists traveling through the vicinity of the Project site. Existing views from local roads also include views of the surrounding rural residential and industrial/commercial uses.

Viewer sensitivity is an assessment of the concern viewer groups may have to changes in the visual character of visual resources based on two factors: viewer exposure and viewer awareness. Viewer exposure is a function of

three elements: visibility, number of viewers, and duration of view. Residents occupying nearby residences would have high viewer sensitivity with a relatively high degree of awareness to changes in existing scenery; however, the number of viewers would be relatively small. Employees of nearby commercial and industrial buildings would have low sensitivity. Although exposure would be high, it is assumed that worker attention would primarily be focused elsewhere than toward any particular view, and visual quality is not typically a focus or expectation associated with their activity. The visual sensitivity of viewers from adjacent roadways, including drivers and passengers in moving vehicles, varies but generally is low. Motorists typically travel at relatively high speeds and pass by an area quickly, which results in low viewer exposure. As indicated above, there are no designated scenic roads, where viewers would have higher sensitivity, located in the Project area.

Overall viewer exposure would be moderate, given the nearby industrial/commercial development and close proximity but small number of residences to the Project site. Overall viewer sensitivity to Project changes in visual character or quality would be considered moderate.

4.1.2 Regulatory Framework

Federal

There are no federal regulations pertaining to aesthetics that would apply to the Project.

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 2008). 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 officially 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 (CALGreen) Code (Title 24, Part 24) 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.

Illuminating Engineering Society Recommended Practices

The Illuminating Engineering Society of North America (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 2007).

The IESNA 10th Edition Lighting Handbook defines lighting zones (LZs) 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 (Town of Apple Valley 2009a).

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 Municipal Code provides landscaping guidelines and regulations in Chapter 9.47 Industrial Development Standards (Section 9.47.050 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. The Project would be required to adhere to this regulation.

Section 9.47.090 Lighting contains general performance standards related to light and glare for industrial development in Town. The Project would be required to adhere to this regulation.

North Apple Valley Industrial Specific Plan

Chapter III, Development Standards and Guidelines, of the North Apple Valley Industrial Specific Plan (NAVISP) (Town of Apple Valley 2012) serves as the NAVISP's Development Code. The NAVISP establishes land use districts to encourage the development of well-planned projects which are consistent with the goals and objectives of the Town's General Plan. The Project site is located within the Specific Plan Industrial (I-SP) Land Use District, which allows for a broad range of clean manufacturing and warehousing uses, ranging from furniture manufacture to warehouse distribution facilities. All uses are required to be conducted within enclosed buildings and outdoor storage is required to be completely screened from view within the I-SP district. Perimeter landscaping must be complementary with that of surrounding projects to provide a unified, cohesive streetscape. Chapter III includes development standards, design standards, and guidelines to shape development consistent with the development vision of the I-SP district. Table 4.1-1 summarizes the development standards for the I-SP district applicable to the Project.

Table 4.1-1. Applicable NAVISP Development Standards

Applicable NAVISP Development Standards for the Specific Plan Industrial Land Use District
Minimum Lot Size: 2 Acres **Minimum Width:** 100 feet **Minimum Depth:** 100 feet
Minimum Front Setback or Street Side Setback ▪ Landscaping: 15 feet ▪ Building: 25 feet
Minimum Building Rear Setback: 15 feet
Minimum Building Interior Side Yard Setback: 0 feet
Maximum Building Coverage (%): 45%
Maximum Height Outside of Airport Influence Area: 50 feet
Minimum Landscape Requirement: 5% of interior parking surface area

Source: Town of Apple 2012.
Note: NAVISP = North Apple Valley Industrial Specific Plan.

In addition, Chapter III of the NAVISP includes Design Standards and Guidelines pertaining to architecture, landscaping, lighting, walls and fences, signage. The NAVISP specifies that projects subject to Site Plan Review shall be reviewed by the Town's Planning Department to ensure that projects are consistent with the General Plan, the NAVISP, the Development Code, and the development policies and standards of the Town.

4.1.3 Thresholds of Significance

The significance criteria used to evaluate Project impacts related to aesthetics are based on Appendix G of the California Environmental Quality Act (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 related to aesthetics.

Issues Not Further Discussed

As analyzed in the Initial Study (Appendix A), the Project would have no impacts on scenic vistas (under Threshold A) or scenic resources within a scenic highway (under Threshold B). As discussed in Appendix A, the Project would not have an adverse effect on a scenic vista because it would not block or obstruct views of highly valued landscape features (e.g., mountain range, lake, or coastline) observable from a publicly accessible vantage point, such as public roads near the Project site. Therefore, the Project would have no impact on scenic vistas. No officially designated or eligible state scenic highways or County-designated scenic routes are visible from the Project site, nor is the Project site visible from any highways, thus, there would be no impact to scenic resources visible from a state scenic highway. Therefore, these issues are not further analyzed in this section. See Appendix A for further details.

4.1.4 Impact Analysis

This section contains an evaluation of potential environmental impacts associated with the Project related to aesthetics. The section describes the methods used in conducting the analysis and evaluates the Project-specific impacts and contribution to significant cumulative impacts, if any are identified.

Methodology

The evaluation of aesthetics and aesthetic impacts is highly subjective. It requires the application of a process that identifies the visual features of the environment and their importance. The existing aesthetic setting involves identifying existing visual character, including visual resources and scenic vistas unique to a project area, as described above in Section 4.1.1, Existing Conditions. Changes to aesthetic resources resulting from implementation of the Project are identified and qualitatively evaluated based on the proposed modifications to the existing setting and viewer sensitivity. Anticipated changes to lighting and glare potential are also qualitatively evaluated.

The analysis of potential impacts related to aesthetics is limited to public views, which are defined as exterior locations accessible by the public. Accordingly, this analysis considers public views from nearby areas where public views to the Project site are available. If the public agency does not include a policy that protects private views, a project's impacts to private views are not required to be evaluated under CEQA (see *Mira Mar Mobile Community v. City of Oceanside* [2004] 119 Cal.App.4th 477). The most recent update to the CEQA Guidelines also clarifies that public views "are those that are experienced from a publicly accessible vantage point" (CEQA Guidelines Appendix G). Therefore, private views by the adjacent residences are not required to be evaluated.

Significance determinations account for the overall visibility of proposed changes and alterations from public viewing areas and the severity of change within the context of existing conditions, as well as the physical characteristics (i.e., scale, mass, color) of Project components. Existing aesthetic conditions of the Project area presented above inform the environmental baseline for aesthetics, and Project information including design plan sets and renderings for the Project, assist in the impact determinations.

Urbanized and Non-Urbanized Area Definitions

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 2022 was approximately 75,856 people (U.S. Census Bureau 2022). However, the Town is bordered by the City of Barstow to the north, City of Victorville to the west, Hesperia to the south, and unincorporated County land to the east. The combined population of the Town and any one of these adjacent cities is over 100,000 persons. According to this definition, the Town would be considered an urbanized area.

CEQA Guidelines Section 15387 also includes a defines "urbanized area" as "a central city or a group of contiguous cities with a population of 50,000 or more, together with adjacent densely populated areas having a population density of at least 1,000 persons per square mile." Based on the Town's 2022 population of 75,856 people and a land area of approximately 77 square miles, the overall population density of Apple Valley was approximately 985 people per square mile (Census Reporter 2023a; U.S. Census Bureau 2022). However, the Project site is located on the outskirts of Town where population density is much lower. The Project site is located in Census Tract 121.01, which had a population of 6,797 people based on the most recent Census data from the 2021 American Community Survey 5-year estimates, and a land area of 39.9 square miles, which is a population density of approximately 170 people per square mile (Census Reporter 2023b; U.S. Census Bureau 2021). According to this definition, the Town and immediate Project vicinity would not be considered an urbanized area.

Section 15387 further indicates that a lead agency shall determine whether a particular area meets the criteria in this section either by examining the area or by referring to a map prepared by the U.S. Bureau of the Census which designates the area as urbanized. The Census Bureau delineates urban areas after each decennial census by applying specified criteria to decennial census and other data. Based on the current map of urban areas from the 2020 Census (U.S. Census Bureau 2023), roughly the southern half of the Town is mapped as an urban area, but not the northern portion of the Town where the Project site is located.

Given the information above, and the fact that the Project site is located on the outskirts of the Town and there is minimal (if any) development contiguous to the Project site, and the lack of traditional urbanized qualities present in the surrounding area, this analysis conservatively includes an assessment of both change in visual character or quality that would occur with the Project (for projects located in non-urbanized areas), as well as whether the Project would conflict with applicable zoning and other regulations governing scenic quality (for projects located in urbanized areas).

Impacts

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. As indicated above in the Methodology subsection, this analysis evaluates the impacts of the Project relative to the criteria for both urbanized (conflicts with applicable zoning and other regulations governing scenic quality) and non-urbanized areas (degradation of existing visual character or quality), since it meets the definition of an urbanized area in Public Resources Code Section 21071, but not in CEQA Guidelines Section 15387, and the Project area also lacks traditional urbanized qualities and is in an undeveloped setting.

Zoning and Regulations Governing Scenic Quality

To ensure that current and future development within the Town is designed and constructed to conform to existing visual character and quality, the Town of Apple Valley Development Code (Title 9 of the Town's Municipal Code) and the NAVISP include design standards related to building size, height, floor area ratio, and setbacks, as well as landscaping, signage, and other visual considerations. These design standards promote visual consistency between adjacent land uses and their surroundings and reduce the potential for conflicting visual elements. Specific to the Project site, Chapter 9.47 (Industrial Design Standards) of the Town's Municipal Code and Chapter III of the NAVISP set forth development standards for industrial development.

The design specifications for the Project have been reviewed by Town staff for compliance with all applicable provisions relating to visual quality and design. In previously deeming the Project's application complete via the Site Plan Review process, which is a process separate from CEQA review, Town staff has determined that the Project design conforms to the Development Code, NAVISP, and promotes the visual character and quality of the surrounding area. Table 4.1-2 provides an analysis of whether the Project would conflict with the development standards for the I-SP Land Use District (Chapter III, Development Standards and Guidelines, NAVISP).

As demonstrated in Table 4.1-2, the Project would not conflict with the development standards of the I-SP Land Use District of the NAVISP. The design of the proposed industrial buildings is required to be reviewed for compatibility with other parts of the community. Title 9 of the Development Code and Chapter III of the NAVISP provide in-depth information regarding design standards and guidelines for industrial development. In accordance with the Development Code and NAVISP design guidelines, all setback areas would be landscaped, and building orientation, siting, and entrances have been designed to minimize conflicts with the surrounding visual environment. The Project would result in the development of vacant, undeveloped land with two industrial buildings that would feature contemporary architecture, landscaping, and streetscape improvements that would achieve development goals set forth in the NAVISP. The Project does not conflict with goals, policies, or programs contained in the Town's General Plan related to scenic quality; see Table 4.9-2 of Section 4.9, Land Use and Planning, which demonstrates the Project would not conflict with relevant General Plan goals, policies, or programs related to scenic quality. As described in that table, the Project proposes new landscaped areas that would be compliant with the Town's Native Plant Protection Ordinance. It also would not require excessive grading and is designed such that the buildings' neutral colors and tones would not contrast with the surrounding desert landscape.

Table 4.1-2. Project Potential to Conflict with Applicable NAVISP Development Standards

Applicable NAVISP Development Standards for the Specific Plan Industrial Land Use District	Project Design
Minimum Lot Size: 2 acres **Minimum Width:** 100 feet **Minimum Depth:** 100 feet	***No Conflict.*** The Cordova Complex site is approximately 87 acres with a width of approximately 2,660 feet and a depth of approximately 1,930 feet. The Quarry at Pawnee site is approximately 76 acres with a width of approximately 1,260 feet and a depth of approximately 2,680 feet.
Minimum Front Setback or Street Side Setback ▪ Landscaping: 15 feet ▪ Building: 25 feet	***No Conflict.*** Both the Cordova Complex site and Quarry at Pawnee site are consistent with these standards, as detailed below: Cordova Complex site ▪ Landscaping: The Project has a 30-foot front landscaping setback on Cordova Road. ▪ Building: The Project has a 347-foot front building setback on Cordova Road, 145-foot side building setback on Navajo Road, and a 231-foot side building setback on Dachshund Road. Quarry at Pawnee site ▪ Landscaping: The Project has a 31-foot, 8-inch front landscaping setback on Quarry Road. ▪ Building: The Project has a 425-foot front building setback on Cordova Road.
Minimum Building Rear Setback: 15 feet	***No Conflict.*** The proposed Cordova Complex site building has an approximately 225-foot minimum rear building setback. The proposed Quarry at Pawnee site building has an approximately 83-foot rear building setback.
Minimum Building Interior Side Yard Setback: 0 feet	***No Conflict.*** Both the Cordova Complex site and Quarry at Pawnee site are consistent with this standard, as detailed below: Cordova Complex site ▪ The Project has a 145-foot side building setback on Navajo Road and a 231-foot side building setback on Dachshund Road. Quarry at Pawnee site ▪ The Project has a 373-foot side building setback on Flint Road.
Maximum Building Coverage (%): 45%	***No Conflict.*** The Cordova Complex site coverage is proposed to be approximately 41.2%. The Quarry at Pawnee site coverage is proposed to be approximately 44.2%.
Maximum Height Outside Airport Influence Area: 50 feet	***No Conflict.*** The Project has a maximum height of 48 feet, measured from grade to roof deck (not including architectural accents or parapet, which may be allowed to exceed the maximum height at the discretion of Town staff).
Minimum Landscape Requirement: 5% of interior parking surface area	***No Conflict.*** The Cordova Complex site and Quarry at Pawnee site would be covered with approximately 19% and 15% landscape area, respectively.

Source: Town of Apple Valley 2012.
Note: NAVISP = North Apple Valley Industrial Specific Plan.

For these reasons, 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, NAVISP, and General Plan guidelines and implementation of site-specific landscaping, the Project would not conflict applicable zoning or other regulations governing scenic quality and impacts would be less than significant.

Visual Character and Quality

The following section discuses construction activities with potential for temporary aesthetic impacts, construction impacts resulting from permanent, physical changes of the landscape by Project facilities, and permanent operational impacts resulting from ongoing activities at the warehouse buildings.

Temporary Construction Impacts

During the approximately 18-month construction period, on-site activities would include site preparation, grading, installation of utilities, tilt-up building construction, site paving, and architectural coating and landscaping. Construction would require the use of typical large construction equipment, such as trucks, cranes, and bulldozers, that would be visible from surrounding areas, including roadways and residences with views looking towards the Project site (specific timing of equipment use would be dependent on the phase of construction). Construction activities would introduce temporary visual disturbances to the surroundings, including earth preparation and grading, aggregations of stored construction materials and equipment, and creation of the concrete tilt-up panels for the warehouse buildings. Views of the active construction areas would be primarily available to motorists on adjacent roadways proximate to the Project site. Construction-related activities would temporarily influence the visual character of the Project site and associated off-site improvement areas, as viewed from surrounding public areas and travelers along surrounding roadways. Each construction stage would intermittently alter the character of the Project site and its surroundings. However, these impacts would be temporary and disturbed areas would be remediated upon completion of construction in accordance with the Project plans. Therefore, impacts on visual character and quality from temporary construction activities would be less than significant.

Permanent Operational Impacts

After completion of construction activities, Project implementation would change the visual character of the Project site from an undeveloped desert landscape to a developed warehouse complex. Figure 4.1-1 and Figure 4.1-2 show architectural renderings for the Cordova Complex site and Quarry at Pawnee site, respectively. Construction of the Project would result in two new warehouse buildings with a maximum height of 48 feet to the roof line. The existing rural character of the Project site and surroundings would be altered by the two new warehouse buildings and associated appurtenances, including lighting, signage, paved parking areas, and new paved roadways and sidewalks. The warehouse buildings would be new structures in previously flat, undeveloped, open terrain that could block views, cast shadows, and add built features to the landscape. The new visual character of the Project site would be similar to the existing warehouse developments to the south of the site.

While construction of the Project would permanently change the visual character of the site, as indicated above, the Project would be required to comply with the design standards contained within the Town of Apple Valley Development Code (Title 9 of the Town's Municipal Code) and the NAVISP 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 and Chapter III of the NAVISP set forth development standards for industrial development. The design specifications for the Project have been reviewed by Town staff for compliance with all applicable provisions relating to visual quality and design. In previously deeming the Project's application complete via the Site Plan Review process, which is a process separate from CEQA review, Town staff has determined that the Project design conforms to the Development Code and NAVISP and promotes the visual character and quality of the surrounding area.

FIGURE 4.1-1

Cordova Complex Rendering

Cordova Complex and Quarry at Pawnee Warehouse Project

DUDEK

FIGURE 4.1-2

Quarry at Pawnee Rendering

Cordova Complex and Quarry at Pawnee Warehouse Project

DUDEK

Additionally, the Project has been designed such that the buildings' colors and tones would be neutral and would not contrast with the natural desert landscape. The proposed buildings include a color palette consisting of soft whites and greys, which would not be conspicuous against the surrounding desert terrain. The Project's landscaping would also help the site blend in with its surroundings by providing natural elements throughout the Project site, including a variety of box trees, shrubs, and drought tolerant plants with varying heights to provide visual relief and screening consistent with the NAVISP and General Plan. Similarly, the proposed buildings would incorporate a variety of materials such as painted concrete, aluminum trim, polymer exterior framing, and entry glazing with blue tempered vision glass that would reflect the sky. Figure 4.1-3 and Figure 4.1-4 show building elevations for the Cordova Complex site and Quarry at Pawnee site, respectively. The building elevations would include vertical and horizontal elements that would break up the overall massing of the buildings and provide visual interest.

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, institutional, and residential uses (i.e., Walmart Distribution Center, Big Lots Distribution Center, Apple Valley Airport, Victor Valley College Regional Public Safety Training Center, Fresenius Medical Care Distribution Center). Undeveloped areas consist of flat desert terrain with sparse vegetation. As a result, the Project site and surrounding area can be characterized as containing low-density exurban industrial, commercial, and residential development within a desert landscape setting. The Project would result in the development of vacant, undeveloped land with two industrial buildings that would feature contemporary architecture, landscaping, and streetscape improvements.

In summary, Project implementation would change the visual character of the Project site from an undeveloped desert landscape to a developed industrial warehouse complex but would be consistent with the pattern of existing development located approximately 0.1 miles (Walmart Distribution Center and Victor Valley College Regional Public Safety Training Center), and 0.6 miles to the south (Fresenius Medical Care Distribution Center and Big Lots Distribution Center), and would not be considered substantial enough to degrade visual quality. Overall viewer sensitivity to changes in visual character or quality would be moderate. Therefore, the Project would have a less-than-significant impact related to visual character or quality.

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 is currently undeveloped and does not support any existing sources of light or glare. Development of the Project would introduce new sources of light and glare to the Project site. However, other semi-rural portions of the Town also contain similar sources of light and glare. Existing sources of light or glare within the area includes 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 Project implementation would 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. Building materials would primarily include concrete, metal, aluminum, and glass windows. These features have the potential to 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, given the minimal extent during which nighttime construction activities could occur, which would also be coordinated with the Town's Building and Safety Department, nighttime construction lighting impacts would be less than significant.

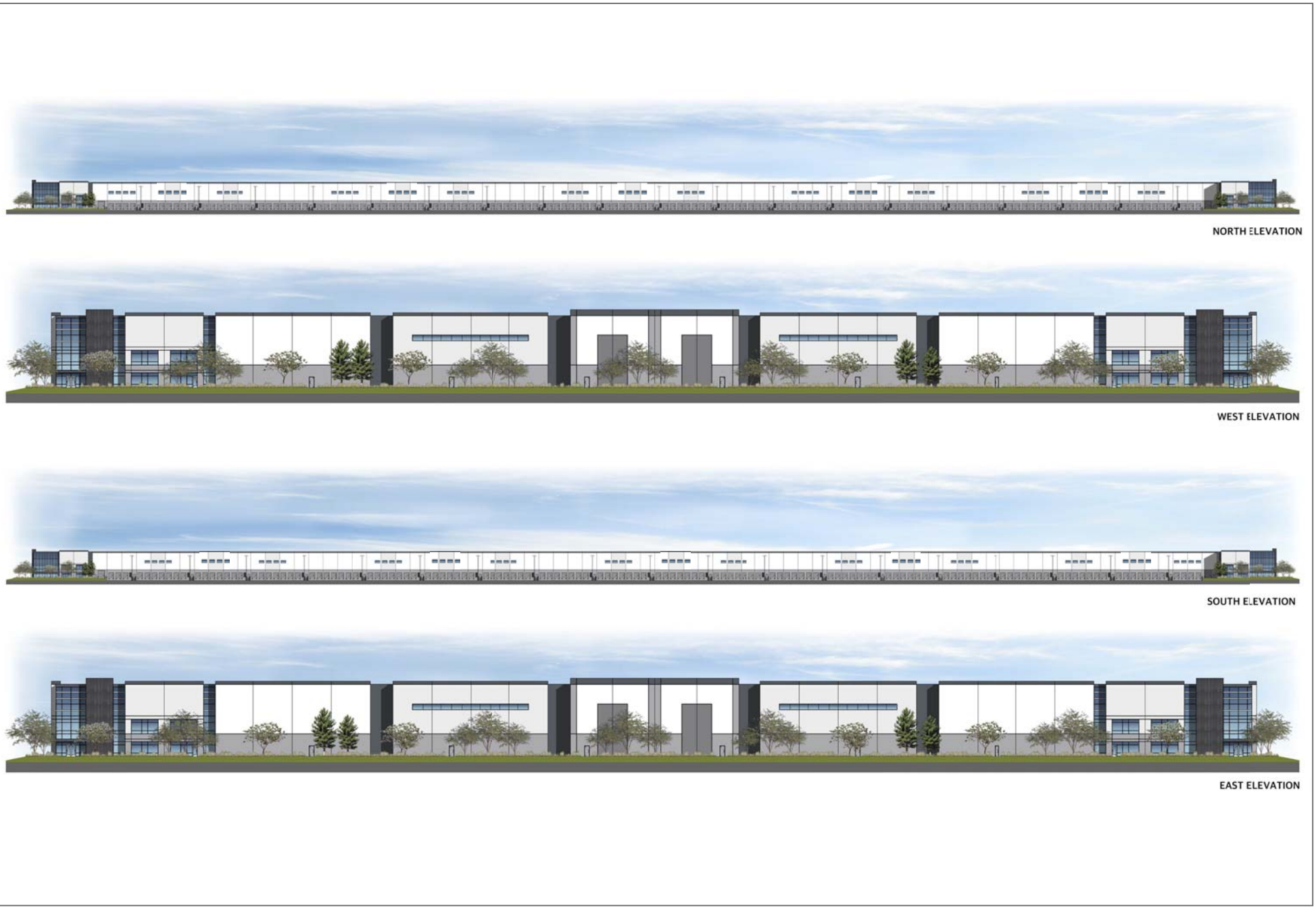

FIGURE 4.1-3

Cordova Complex Building Elevations

Cordova Complex and Quarry at Pawnee Warehouse Project

DUDEK

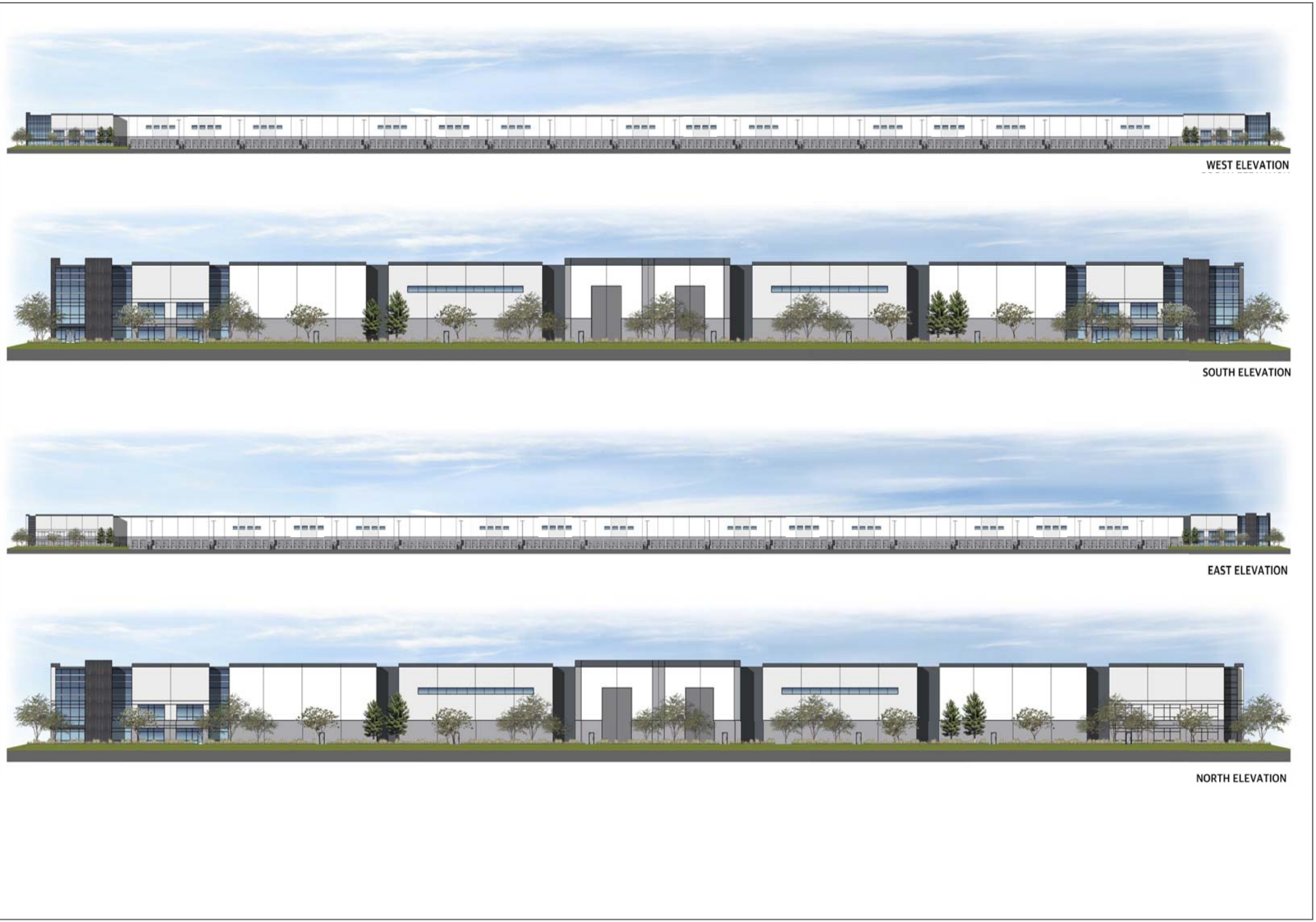

FIGURE 4.1-4

Quarry at Pawnee Building Elevations

Cordova Complex and Quarry at Pawnee Warehouse Project

DUDEK

Project implementation would have the potential to result in significant adverse light and glare impacts on nighttime views due to the addition of building and parking lot lighting on the Project site. However, the Project would be required to minimize light and glare impacts to sensitive land uses through the incorporation of setbacks and site planning. The Project would comply with the Town's Municipal Code, specifically with Title 9 Development Code (Section 9.47.090 Lighting) and Chapter III of the NAVISP, which contains general performance standards related to light and glare for lighting uses associated with industrial development within the Town. These include requirements that all outdoor lighting be shielded and all light and glare be directed onto the Project site and away from adjacent properties.

Given that the Project is located adjacent to sensitive receptors (rural residences) to the south of the Cordova Complex site and east of the Quarry at Pawnee site, lighting has been designed such that lighting would be directed on site and away from neighboring parcels. Moreover, the Project's grading plan calls for sloped areas (33% grade) along the southern boundary of the Cordova Complex site that would further limit light trespass to the adjacent residential use, which is adjacent to the southern site boundary. Similarly, the Quarry at Pawnee site would also be graded along its northern boundary to create a sloped area; this would further limit light trespass to the adjacent residential use to the north.

Lighting associated with streetlights would also 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 would be prepared by the Project Applicant prior to finalization of site plans. Through this process, Town staff would ensure that Project lighting would not result in light trespass on adjacent properties.

All light fixtures would be required to be consistent with the CALGreen Code for illumination. The CALGreen 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 2022). The Project would be required to comply with the CALGreen BUG rating for Lighting Zone 3. Furthermore, in accordance with Section 9.47.090 of the Town's Municipal Code and Chapter III of the NAVISP, all outdoor lights would be shielded and directed onto the Project site and away from adjacent properties, and the Project would not include blinking, flashing, or oscillating light sources.

As described above under Threshold C, the proposed buildings would be comprised of a variety of materials, including painted concrete, aluminum trim, polymer exterior framing, and blue reflective glazing. Blue reflective glazing and metallic trim is proposed for the entrance fronts of both of the proposed buildings. Although metallic materials and glass have been incorporated into the Project design, Project setbacks and proposed landscaping would provide screening of Project elements from view, and all paint finishes would be flat (not glossy). 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. For these reasons, impacts associated with light and glare would be less than significant.

Threshold E: Would the Project result in cumulatively considerable impacts related to aesthetics?

Less-than-Significant Cumulative Impact. The geographic scope of the cumulative aesthetics analysis is the Project's viewshed (i.e., the area that could potentially have views of Project features and the area potentially viewed from the Project site). This is considered the area within view of the Project site, and therefore, the area most likely to experience changes in visual character or experience light and glare impacts from the Project. Cumulative projects would result in new development that would continue to incrementally add new buildings to the Project area. Like the Project, cumulative projects would be subject to the design guidelines and standards outlined in the

Town's Development Code, NAVISP, and General Plan for industrial development, which provide the framework for the desired aesthetic and visual environment. These guidelines and standards aim to protect the Town's high desert setting and panoramic mountain views while facilitating economic growth, which include recommendations for the architectural character of new buildings to maximize views of the landscape while taking inspiration from surrounding natural elements. Furthermore, development in the Project area would continue to be surrounded by open stretches of desert landscape with low-density uses, thereby maintaining its semi-rural character. Thus, on the viewshed scale, cumulative development would be visually subordinate to the surrounding mountains rising above the valley floor and expansive desert terrain, resulting in a less-than-significant cumulative impact related to a change in visual character.

Cumulative development would introduce additional new sources of light in a setting that includes large areas of undeveloped land. However, like the Project, cumulative development would be required to comply with existing regulations related to lighting (i.e., lighting would be directed downward, shielded, and focused on specific project sites) to ensure lighting would have a minimal effect on the overall night sky and reduce the potential for glare. Therefore, compliance with these regulations would ensure that cumulative impacts related to light and glare would be less than significant.

4.1.5 Mitigation Measures and Level of Significance After Mitigation

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 a less-than-significant impact related to degradation of existing visual character or quality, and conflicts with applicable zoning or other regulations governing scenic 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 a less-than-significant impact related to light and glare. No mitigation is required.

Threshold E: Would the Project result in cumulatively considerable impacts related to aesthetics?

The Project, in combination with past, present, and reasonably foreseeable future development, would result in less-than-significant cumulative impacts related to aesthetics. No mitigation is required.

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4.2 Air Quality

This section describes existing conditions related to air quality, identifies associated regulatory requirements, evaluates potential project and cumulative impacts, and identifies mitigation measures for any significant or potentially significant impacts related to implementation of the of the Cordova Complex and Quarry at Pawnee Warehouse Project (Project).

Comments regarding air quality were received during the scoping period for this environmental impact report (EIR) from the State of California Department of Justice (DOJ), the Mojave Desert Air Quality Management District (MDAQMD), and Center for Community Action and Environmental Justice (CCAEJ). These comments included concerns regarding air pollutant emissions and recommendations for control measures from the DOJ and the MDAQMD. Comments from the CCAEJ expressed concerns regarding air pollution impacts on sensitive communities along truck haul routes. All scoping comment letters received are provided in Appendix A.

This analysis is based, in part, on air quality modeling conducted by Dudek for the Project (Appendix B-1), a health risk assessment prepared by Dudek for the Project (Appendix B-2), South Coast Air Quality Management District and the San Joaquin Valley Air Pollution Control District Full Amicus Briefs (Appendix B-3), and traffic impact analyses prepared by David Evans and Associates for the Project (Appendix C).

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 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

[1] The description of the MDAB climate and topography is based on the *MDAQMD California Environmental Quality Act (CEQA) and Federal Conformity Guidelines* ("MDAQMD CEQA Guidelines;" MDAQMD 2020). The description of the Western Mojave Desert O_3 nonattainment area is based the *MDAQMD Federal 8-Hour Ozone Attainment Plan for the Western Mojave Desert Non-Attainment Area* (MDAQMD 2008).

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 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 site is located within the 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 less than or equal to 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 [ROGs]). 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 Earth's atmosphere. Without the protection of the beneficial stratospheric O_3 layer, plant and animal life would be seriously harmed.

[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.

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 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).

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 VOCs, 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).

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, for children, they typically spend more time outdoors. 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 2023c).

Carbon Monoxide. CO is a colorless, odorless gas formed by the incomplete combustion of hydrocarbons, 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.

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 2023d).

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.

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 2023e).

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.

$PM_{2.5}$ 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 2023f).

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 2023f). As discussed for O_3, air quality in the MDAB has generally improved since the inception of air pollutant monitoring including PM_{10} ambient concentrations.

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.

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. 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. 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. 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. 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.

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. 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 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 2023g). 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 2023g). 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.

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 $PM_{2.5}$, DPM also contributes to the same noncancer health effects as $PM_{2.5}$ 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 2023g). 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., 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 California Department of Public Health listed San Bernardino County as having 11.4 cases per 100,000 people (CDPH 2021).

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 2020). The nearest sensitive receptors to the Project site are existing residences about 205 feet to the south of the Cordova Complex site (along Dachshund Avenue), 305 feet to the east of the Quarry at Pawnee site (along Flint Road), and along the Project's haul routes.

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

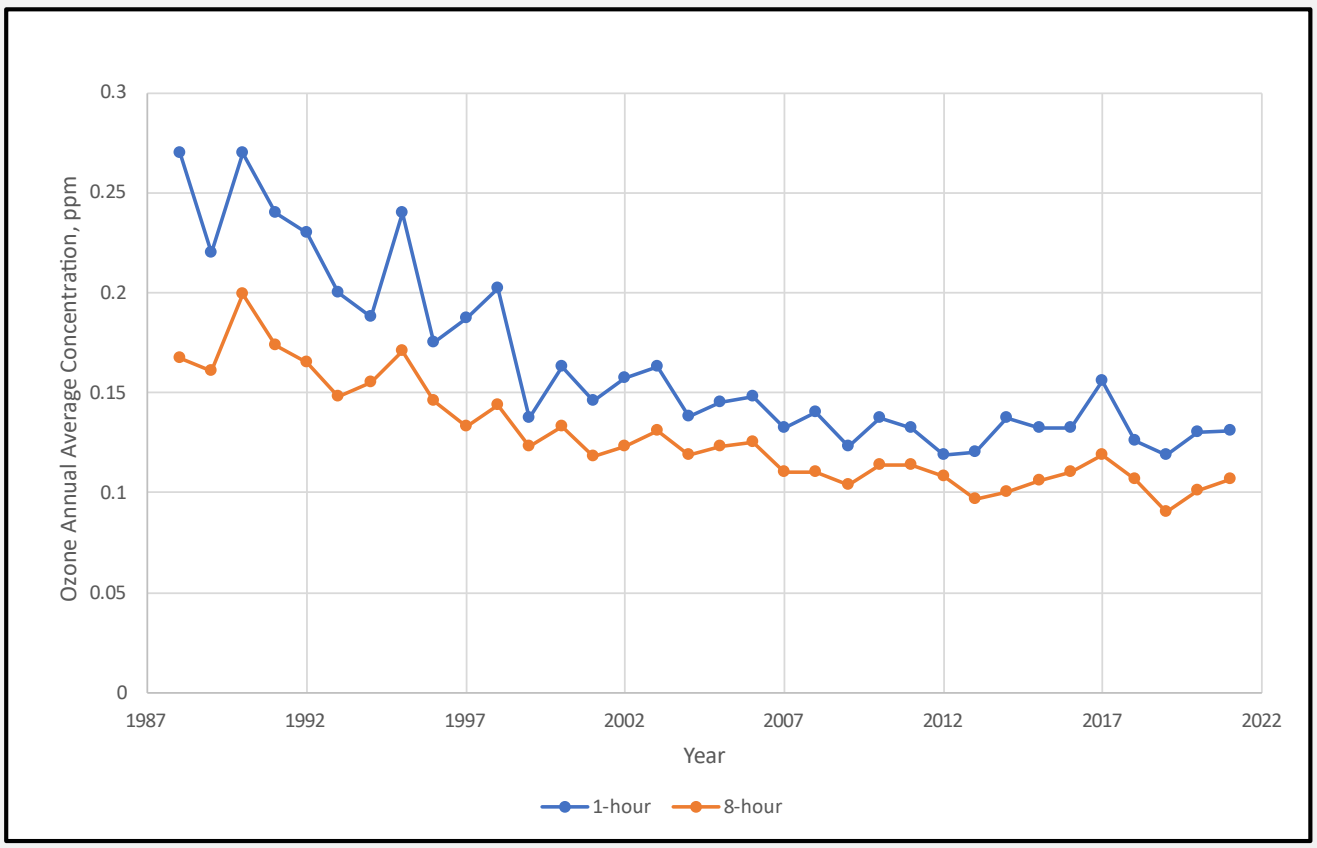
Pollutant	Designation/Classification[a]	
	Federal Standards	State Standards
O_3 – 1 hour	No federal standard	**Nonattainment**
O_3 – 8 hours	**Severe nonattainment[b]**	**Nonattainment**
NO_2	Unclassifiable/attainment	Attainment
CO	Unclassifiable/attainment	Attainment
SO_2	Unclassifiable/attainment	Attainment
PM_{10}	**Moderate nonattainment[c]**	**Nonattainment**
$PM_{2.5}$	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 2022 (federal); CARB 2022b (state).
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.
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. The Kern County portion of the MDAB is designated moderate nonattainment, and the remaining areas of the MDAB are designated unclassifiable/attainment.
[c] The Project is located in an area designated moderate nonattainment in the MDAB.
[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.

In summary, the Project site 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 2022; CARB 2022b).

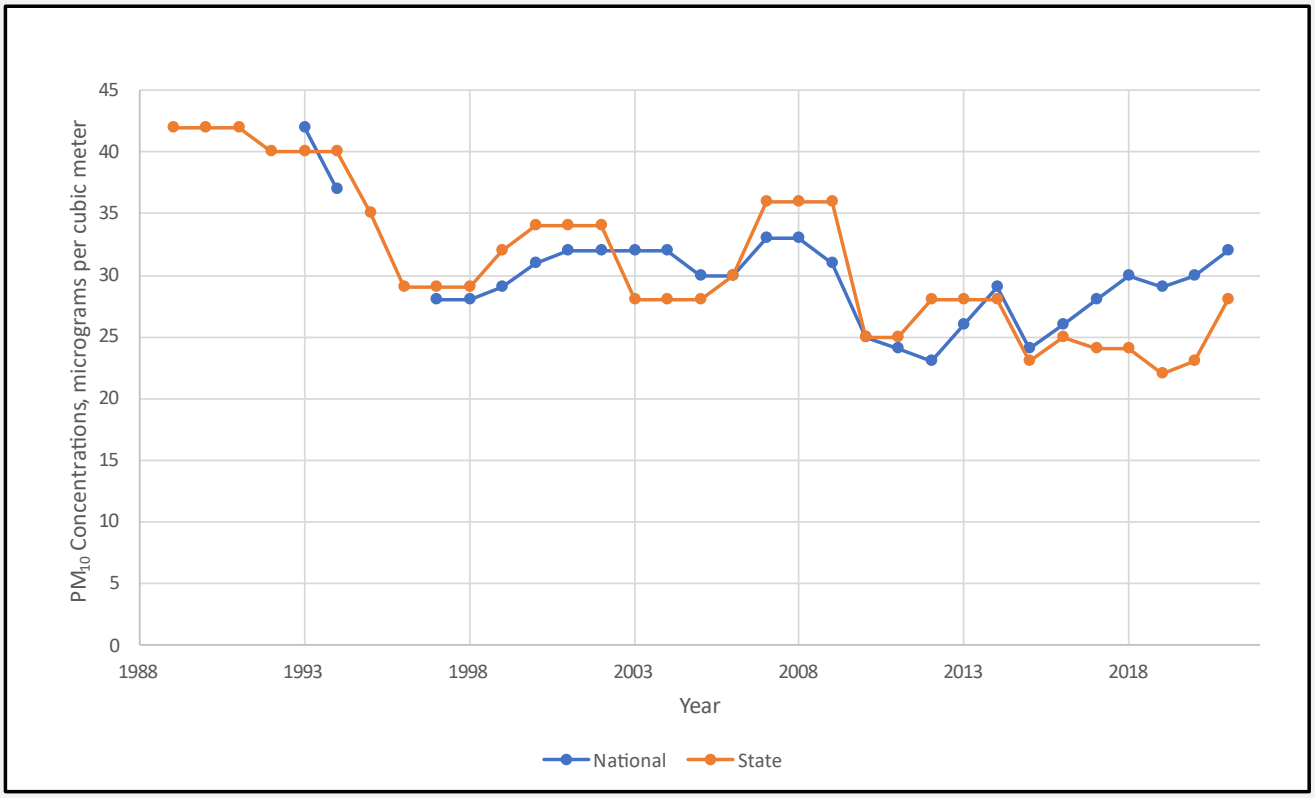
Despite the current nonattainment status for O_3 and PM_{10}, air quality in the MDAB has generally improved since the inception of air pollutant monitoring. This improvement is mainly a result of lower-polluting on-road motor vehicles, more stringent regulation of industrial sources, and the implementation 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 (SJVAPCD), 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. Figure 4.2-1 and Figure 4.2-2 demonstrate the reduction in O_3 and PM_{10} over time, respectively.[4]



Source: CARB 2022a, iADAM Air Quality Statistics. Units = parts per million (ppm).

Figure 4.2-1. State 1-Hour and 8-Hour O_3 Concentration Trend – Mojave Desert Air Basin

[4] Figures are provided for the non-attainment criteria air pollutants only (i.e., O_3 and PM_{10}).



Source: CARB 2022a, iADAM Air Quality Statistics. Units = micrograms per cubic meter.

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

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, because the MDAQMD is overwhelmingly impacted by O_3 transported from the South Coast Air Basin, the MDAB would likely be in attainment of O_3 standards without the influence of this transported air pollution from upwind regions (MDAQMD 2008). Nonetheless, as shown in Figure 4.2-1, the MDAQMD has experienced a substantial reduction in maximum 8-hour O_3 concentrations over time. Per the O_3 indicator values between 1995 and 2006 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 (MDAQMD 2008). The three stations closest to the South Coast Air Basin have the highest historical O_3 concentrations (Phelan, Hesperia, and Victorville), while the more distant or isolated stations (Barstow and Twentynine Palms) have much lower O_3 concentrations and are experience concentrations in attainment of the NAAQS (MDAQMD 2008).

Regarding particulate matter (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 the 2016 Air Quality Management Plan and the draft 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 2013). Similar improvements are observed with O_3 within the South Coast Air Basin, although the rate of O_3 decline has slowed in recent years (SCAQMD 2013). 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 (SCAQMD 2022). 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, Regulatory Framework.

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 2020 to 2022 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 9.7 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	3
	ppm	Maximum 8-hour concentration	State	0.070	0.095	0.098	0.090	38	35	49
			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	0.053	0	0	0
			Federal	0.100	0.059	0.057	0.054	0	0	0
	ppm	Annual concentration	State	0.030	0.012	0.012	0.012	0	0	0
			Federal	0.053	0.012	0.012	0.012	0	0	0
Carbon Monoxide (CO)										
Victorville	ppm	Maximum 1-hour concentration	State	20	1.7	1.5	—	0	0	—
			Federal	35	1.7	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	0.003	0.004	—	0	0	—
	ppm	Maximum 24-hour concentration	Federal	0.14	0.002	0.002	—	0	0	—
	ppm	Annual concentration	Federal	0.030	0.001	0.001	—	0	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	1.9 (2)	1.0 (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	24.6	4.0 (4)	1.0 (1)	0.0 (0)
	µg/ m^3	Annual concentration	State	12	10.4	10.3	9.0	0	0	0
			Federal	12.0	9.7	10.2	8.9	0	0	0

Sources: CARB 2023h; EPA 2023b.

Notes: ppm = parts per million; µg/m^3 = micrograms per cubic meter; — = not available.

Data taken from CARB iADAM (CARB 2023) and EPA AirData (EPA 2023b) 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 Regulatory Framework

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)	—	—
Vinyl chloride[j]	24 hours	0.01 ppm (26 µg/m³)	—	—
Sulfates	24 hours	25 µg/m³	—	—
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%	—	—

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]

Source: CARB 2016.

Notes: O_3 = ozone; ppm = parts per million by volume; μg/m³ = micrograms per cubic meter; NO_2 = nitrogen dioxide; CO = carbon monoxide; mg/m³ = 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/m³ 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/m³ to 12.0 μg/m³. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 μg/m³, as was the annual secondary standard of 15 μg/m³. The existing 24-hour PM_{10} standards (primary and secondary) of 150 μg/m³ 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.

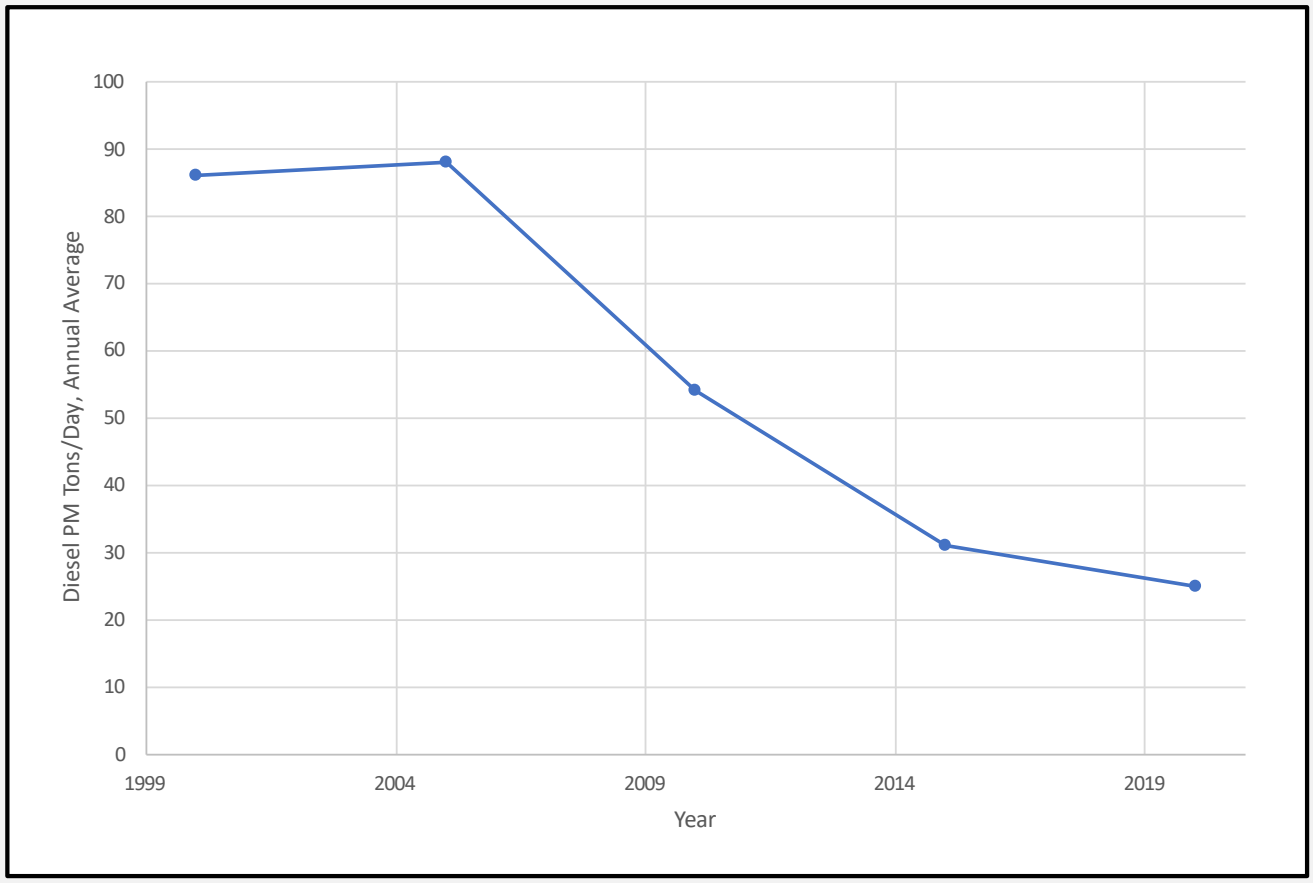
k The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5 μg/m³ as a quarterly average) remains in effect until 1 year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, 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.

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). 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: O_3, 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. Figure 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.



Source: CARB 2013.

Figure 4.2-3. Statewide Diesel Particulate Matter Trends

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 2008).

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.

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.

With respect to air quality planning and other regional issues, SCAG has most recently developed Connect SoCal, the 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), which is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals. Connect SoCal charts a path toward a more mobile, sustainable, and prosperous region by making connections between transportation networks, planning strategies, and the people whose collaboration can improve the quality of life for Southern Californians. Connect SoCal embodies a collective vision for the region's future and is developed with input from local governments, county transportation commissions, tribal governments, non-profit organizations, businesses, and local stakeholders within the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. SCAG's 2020–2045 RTP/SCS was adopted on September 3, 2020 (SCAG 2020).

Town of Apple Valley General Plan

The Town of Apple Valley (Apple Valley or Town) 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 PM_{10} and O_3 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 Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, 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 impacts related to air quality.

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 CEQA Guidelines (MDAQMD 2020), 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 Guidelines (MDAQMD 2020) 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 2020.
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.
[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.

- The Bay Area Air Quality Management District determined that projects would result in a less-than-significant impact to localized CO concentrations if (1) project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour, or (2) project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway) (BAAQMD 2023).

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.

4.2.4 Impact Analysis

Methodology

The California Emissions Estimator Model (CalEEMod) Version 2022.1 was used to estimate emissions from construction of the Project (CAPCOA 2022). CalEEMod is a statewide computer model developed in cooperation with air districts throughout the state to quantify criteria air pollutant and GHG emissions associated with construction activities and operation of a variety of land use projects, such as residential, commercial, and industrial facilities. CalEEMod input parameters, including the land use type used to represent the Project and its size, construction schedule, and anticipated use of construction equipment, were based on information provided by the applicant or default model assumptions if Project specifics were unavailable.

Construction

Criteria air pollutant emissions associated with construction of the Project were estimated using CalEEMod for the following emission sources: operation of off-road construction equipment, fugitive dust, VOC off-gassing from paving and architectural coating, on-road hauling and vendor (material delivery) trucks, and worker vehicles. Construction scenario assumptions, including phasing, equipment mix, and vehicle trips, were based on Project-specific values provided by the applicant and CalEEMod default values when Project specifics were not known.

For the purpose of estimating Project emissions, construction was modeled beginning in September 2024 and concluding in March 2026[5] and lasting approximately 19 months, including all on-site and off-site improvements. Construction activities would generally occur across six phases: site preparation (e.g., vegetation clearing, grubbing, discing), grading, utility installation (trenching), building construction, paving, and architectural coating. With the exception of architectural coating (which would only occur on the Project sites), all phases would occur both on the Project sites and include the off-site roadway and utility improvements.

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

- Site Preparation and grading: September 2024 – November 2024
- Utility installation/off-site improvements: November 2024 – December 2025
- Building construction: November 2024 – December 2025
- Paving: December 2025 – January 2026
- Architectural coating: January 2026 – March 2026

[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.

Construction activities would include site clearing and grading, trenching for utilities, building construction, roadway expansions, paving, and landscaping. It is assumed both warehouses would be constructed at the same time. Exterior building walls for both warehouses would involve concrete tilt-up construction and would be approximately 10 inches thick with accentuated office corners with high performance storefront systems.

Construction modeling assumptions for equipment and vehicles are provided in Table 4.2-5. Equipment mix, including equipment horsepower, load factor, quantity, and usage hours, was based on CalEEMod default values. For the analysis, it was generally assumed that heavy-duty construction equipment would be operating at the site five days per week. CalEEMod default trip length values were used for the distances for worker and vendor truck trips. Earthwork required for construction on the Cordova Complex site would require 287,500 cubic yards of cut and 359,500 cubic yards of fill, for a net fill of 72,000 cubic yards of material, and the Quarry at Pawnee site would require 423,000 cubic yards of cut and 351,000 cubic yards of fill, for a net cut of 72,000 cubic yards of material. Earthwork materials across the two sites would be balanced during the grading phase, with cut from the Quarry at Pawnee site being used as fill on the Cordova Complex site. As soils would be transported from one site to the other, a trip length of 1 mile was assumed in CalEEMod for haul trucks during the grading phase.

Table 4.2-5. Construction Scenario Assumptions

Construction Phase	Average One-Way Vehicle Trips Per Day				Equipment		
	Worker Trips	Vendor Truck Trips	Haul Truck Trips	On-Site Truck Trips	Equipment Type	Quantity	Daily Usage Hours
Site Preparation	18	4	0	4	Rubber Tired Dozers	3	8
					Tractors/Loaders/Backhoes	4	8
Grading	26	4	200	4	Excavators	2	8
					Graders	1	8
					Rubber Tired Dozers	1	8
					Scrapers	2	8
					Tractors/Loaders/Backhoes	2	8
Building Construction	616	240	0	0	Cranes	1	7
					Forklifts	3	8
					Generator Sets	1	8
					Tractors/Loaders/Backhoes	3	7
					Welders	1	8
Paving	16	0	0	0	Pavers	2	8
					Paving equipment	2	8
					Rollers	2	8
Architectural Coating	124	0	0	0	Air Compressors	1	6
Utilities/Off-Site Improvements	16	0	0	0	Trenchers	1	8
					Cranes	1	8
					Tractors/Loaders/Backhoes	1	8
					Pavers	1	8
					Paving Equipment	1	8
					Rollers	1	8

Source: Appendix B-1.

Operation

Project-generated operational criteria air pollutant emissions were estimated for mobile, area, energy, stationary, and off-road sources using CalEEMod. Operational year 2026 was assumed after completion of construction.

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 warehouses.

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 analyses (Appendix C), were 3,682 primary trips per day (2,732 passenger vehicle trips and 950 truck trips) for the Cordova Complex and 3,451 primary trips per day (2,561 passenger vehicle trips and 890 truck trips) for Quarry Pawnee, which were assumed 7 days per week. The truck breakdown by axle was also taken from the transportation assessments prepared for the Project.

To identify an appropriate trip length assumption for heavy-duty truck trips, two different methods of estimation were evaluated: (1) Project-specific "EMission FACtor" (EMFAC)-based estimate, and (2) SCAQMD recommendations. 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 vehicle miles traveled (VMT) and number of vehicle trips. Based on the EMFAC data, it is estimated that MHDTs average 4.31 miles per trip and HHDTs average 9.74 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 site was estimated to be 110 miles. Based on the EIR's transportation analysis, HHDT make up 66.1% 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 would travel 110 miles. The other 50% making up the HHDT departure from the Project site 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 equal to 41 miles. See Table 4.2-6 for calculation details.

For method 2, all truck trip lengths were conservatively based on the SCAQMD recommendation of 40 miles for HHDT and assumed to be 100% of primary trips.[6] As 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, as well as a higher trip length than method 2, 41 miles per truck trip is applied in this analysis to estimate mobile source emissions.

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 (13 CCR 2485); however, for modeling purposes, it was conservatively assumed that the trucks would idle for a total of 15 minutes: 5 minutes at the entrance, 5 minutes at the loading dock, and 5 minutes at the exit of the Project site.

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 "Preliminary Warehouse Emission Calculations" assumed a heavy-heavy-duty truck trip length of 39.9 miles (SCAQMD 2021). Therefore, the conservatively assumed trip length of 40 miles is used for this analysis for all truck trips.

Table 4.2-6. Operational Truck Trip Distance

Vehicle	Percent of Truck Trips[1]	EMFAC Data			Trip Distance
		EMFAC Truck Classification	County-Wide VMT	County-Wide Vehicle Trips	VMT per Trip
2-4 Axle Trucks (Arriving and Departing)	33.9	LHDT1, LHDT2, and MHDT	731,360	230,179	4.31[2]
4+ Axle Trucks (Arriving from Port)	33.0 (50% of total HHDT Trips[4])	HHDT	N/A	N/A	110[3]
4+ Axle Trucks (Departing)	33.0 (50% of total HHDT Trips[4])	HHDT	2,771,006	284,511	9.74
				Weighted Average (All Truck Trips)	**41.02**

Source: Appendix B-1.
Notes:
1 Based on Project traffic impact analyses (Appendix C).
2 LHDT1, LHDT2, and MHDT conservatively based on EMFAC VMT per trip 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 County-wide average HHDT truck VMT per trip.

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 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 are estimated in CalEEMod based on the floor area of nonresidential buildings and on the default factor of pounds of VOC per building square foot per day. For the asphalt surface land use, CalEEMod estimates VOC emissions associated with use of parking surface degreasers based on a square footage of parking surface area and pounds of VOC per square foot per day.

VOC off-gassing emissions result from evaporation of solvents contained in surface coatings such as in paints and primers using during building maintenance. CalEEMod calculates the VOC evaporative emissions from application of nonresidential surface coatings based on the VOC emission factor, the building square footage, the assumed fraction of surface area, and the reapplication rate. The VOC emission factor is based on the VOC content of the surface coatings, and MDAQMD's Rule 1113 (Architectural Coatings) governs the VOC content for interior and exterior coatings. The model default reapplication rate of 10% of area per year is assumed. Consistent with CalEEMod defaults, it is assumed that the nonresidential surface area for painting equals 2.0 times the floor square footage, with 75% assumed for interior coating and 25% assumed for exterior surface coating (CAPCOA 2022).

Landscape maintenance includes fuel combustion emissions from equipment such as lawn mowers, rototillers, shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers. The emissions associated from landscape equipment use are estimated based on CalEEMod default values for emission factors (grams per square foot of

nonresidential building space per day) and number of summer days (when landscape maintenance would generally be performed) and winter days.

Energy Source Emissions

As represented in CalEEMod, energy sources include emissions associated with building electricity and natural gas usage. As described in Chapter 3, Project Description, the Project would not use natural gas. The electricity demand estimates were increased accordingly to account for the all-electric facilities. Notably, 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.

Stationary Sources

The Project would potentially operate one diesel-fueled 200-horsepower (hp) fire pump (one at each warehouse building). These fire pumps were each assumed to operate 1 hour a day for up to 50 hours a year for routine testing and maintenance.

Off-Road Equipment

It is common for industrial 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 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 64 forklifts (forklifts and pallet jacks) and 10 yard tractors operating at 24 hours a day for 365 days of the year.

Health Risk Assessments

Construction Health Risk Assessment

Quantitative construction and operational health risk assessments (HRAs) were prepared for the exposure to DPM from construction equipment/trucks and diesel-fueled trucks/fire pumps during operations, respectively. The following discussion summarizes the dispersion modeling and HRA methodology; supporting HRA documentation, including detailed assumptions, is presented in Appendix B-2.

As described previously, the MDAQMD has adopted a cancer risk threshold of 10 in a million (MDAQMD 2020), which indicates that a person has an additional risk of 10 chances in a million (0.001%) of developing cancer during their lifetime as a result of the air pollution scenario being evaluated. The MDAQMD has also adopted a hazard index less than 1.0, below which indicates that people are not likely to experience any non-cancer health effects (MDAQMD 2020).

The cancer risk parameters for exposure to TACs, such as age-sensitivity factors, daily breathing rates, exposure period, fraction of time at home, and cancer potency factors used in the analysis herein are based on the values and data recommended by the Office of Environmental Health Hazard Assessment (OEHHA) *Air Toxics Hot Spots Program Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments 2015* (2015 Risk Assessment Guidelines Manual) (OEHHA 2015), as implemented in the Hotspots Analysis and Reporting Program Version 2 (HARP2). Accordingly, this HRA evaluates and reflects conservative, health-protective methodologies to assess health impacts to adults, as well as infants, children, and other sensitive subpopulations.

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).

Air dispersion modeling was performed using the EPA's American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD) Version 23132 modeling system (computer software) with the Lakes Environmental Software implementation/user interface, AERMOD View Version 12.0. The dispersion modeling included the use of standard regulatory default options. AERMOD parameters were selected as representative of the Project site and Project activities. Principal parameters of this modeling are presented in 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	The following modeling parameters for emissions sources were incorporated into AERMOD. These parameters were obtained from information published by regulatory agencies and represent the best available information at the time of this writing. <u>Construction:</u> ▪ Off-road equipment and 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 (SCAQMD 2008). <u>Operations:</u> ▪ Trucks were modeled as lines of adjacent volume sources along the anticipated haul routes with a release height of 3.4 meters, a plume height of 6.8 meters, and plume width of 9.7 meters (EPA 2021). ▪ For truck idling, line sources were placed at the loading docks with a release height of 3.4 meters, a plume height of 6.8 meters, and plume width of 3.7 meters (EPA 2021). ▪ The fire pump at each building was modeled as a point source. The 200-hp fire pumps were assumed to have a vertical stack with a height of 2.26 meters, inside stack diameter of 0.09 meters, gas exhaust temperature of 899 degrees Fahrenheit, and gas exhaust of 22.06 cubic meters per minute (SBCAPCD 2020).
Building Heights	For the operational scenario, on-site buildings were included in the modeling using best available dimensional data. Building downwash effects were assessed using Building Profile Input Program with Plume Rise Model Enhancements. No buildings were included for the construction scenario.
Receptors	Discrete receptors were placed at the nearest receptor locations in all directions to the Project site and along identified haul routes.

Source: EPA 2021; SBCAPCD 2020; SCAQMD 2008.
Notes: AERMOD = American Meteorological Society/Environmental Protection Agency Regulatory Model; MDAQMD = Mojave Desert Air Quality Management District.
See Appendix B-2 for complete model parameter inputs.

The health risk calculations presented herein were performed using the 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 concentration plot files were then used to estimate the long-term cancer and non-cancer health risk at the proximate residential receptors. The exposure parameters included in HARP2 are described below:

- Maximally Exposed Individual Resident (MEIR): For residential receptors during Project construction and operation, TAC exposure was assumed to begin in the 3rd trimester of pregnancy (assumed to be the worst-case scenario for cancer risk) for a duration of 1.15 years (construction) and 30 years (operations).[7]

Sustainability Features and Project Design Features

The Project has been designed to include a number of Project Design Features (PDFs) to minimize the Project's environmental impacts. These PDFs are included as part of the Project; however, to ensure the PDFs are implemented during construction and operation, they are included within the Project's Mitigation Monitoring and Reporting Program. The PDFs relevant to air quality are listed below and organized by site and building design, construction, and operation. For complete details of the PDFs, see Chapter 3, Project Description.

Building Design

- PDF-DES-1: Sustainable Design/LEED Measures
- PDF-DES-2: Sustainable Concrete Building
- PDF-DES-3: Electrical Infrastructure for Electric Equipment and Vehicles
- PDF-DES-4: Electric Vehicle Charging Stations
- PDF-DES-5: Sustainable Energy, Waste, and Water Design Measures
- PDF-DES-7: Measures to Reduce the Urban Heat Island Effect

Construction

- PDF-CON-1: Heavy-Duty Off-Road Construction Equipment Requirements/Restrictions
- PDF-CON-2: Provision of Electrical Infrastructure for Construction and Use of Electric Construction Equipment
- PDF-CON-3: Construction Equipment Idling Restrictions
- PDF-CON-4: Construction Haul Truck Requirements
- PDF-CON-5: Dust Control Measures
- PDF-CON-7: Architectural Coating Requirements
- PDF-CON-8: Construction Logs

Operation

- PDF-OP-1: Zero-Emission Equipment
- PDF-OP-2: Truck Requirements and Restrictions

[7] OEHHA describes cancer risk evaluations for 9-, 30-, and 70-year exposure durations in the 2015 Risk Assessment Guidelines Manual and identifies that the 9- and 30-year durations correspond to the average and high-end of residency time recommended by the EPA, with the 30-year exposure duration recommended for use as the basis for estimating cancer risk at the maximally exposed individual resident in all HRAs (OEHHA 2015).

- PDF-OP-3: Idling Time Restriction
- PDF-OP-4: Anti-Idling Implementation Measures
- PDF-OP-5: Truck Routing Plan
- PDF-OP-6: Transportation Demand Management Plan
- PDF-OP-7: Yard Sweeping to Reduce Fugitive Dust
- PDF-OP-8: Restriction on Cold and/or Refrigerated Space
- PDF-OP-9: Provision of Information Regarding Programs to Reduce Emissions from Trucks
- PDF-OP-10: Provision of Information Regarding Reducing Emissions from Area and Energy Sources
- PDF-OP-11: Fire Pump Requirements

This section contains an evaluation of potential environmental impacts associated with the Project related to air quality. The section identifies the methods used in conducting the analysis and evaluates the Project-specific impacts and contribution to significant cumulative impacts, if any are identified.

Impacts

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 VMT are also deemed to comply with the applicable air quality plan (MDAQMD 2020).

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). The Project site is within the North Apple Valley Industrial Specific Plan (NAVISP) and the site and surrounding area are designated exclusively for Specific Plan Industrial (I-SP) and General Industrial (I-G) land uses. The Project site is designated I-SP in the NAVISP and Specific Plan (SP) in the Apple Valley General Plan and is also zoned as SP. The Project would be consistent with the land use designations and zoning for the sites.

As described previously in Section 4.2.3, Thresholds of Significance, the Project would implement a rigorous suite of PDFs that have been developed to reduce emissions from short-term construction sources (i.e., off-road equipment, on-road vehicles, and architectural coatings) and from long-term operational sources (i.e., off-road equipment, on-road vehicles, energy, water, waste, and stationary equipment). As discussed under Threshold B below, Project construction-source emissions would not exceed applicable MDAQMD regional thresholds. However, Project operational-source air pollutant emissions would result in exceedances of regional thresholds for emissions of NO_x and PM_{10}, primarily associated with mobile source vehicles (about 99.9% of NO_x and PM_{10}), even after

implementation of PDFs. Although many PDFs have been identified that apply to mobile sources (PDF-DES-3, PDF-DES-4, PDF-DES-6, PDF-OP-2, PDF-OP-3, PDF-OP-4, PDF-OP-5, PDF-OP-6, and PDF-OP-9), quantitative reductions from these mobile source PDFs cannot be determined at this time and neither the Project Applicant nor the Town can substantively or materially affect reductions in Project on-road mobile source emissions beyond what is already required by regulation. No additional feasible mitigation measures have been identified that could reduce operational emissions to below the MDAQMD thresholds for NO_x and PM_{10}. As such, NO_x and PM_{10} operational emissions are considered significant and unavoidable, 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 AAQS. On this basis, the Project would be considered to potentially conflict with the Federal Particulate Matter Attainment Plan and Ozone Attainment Plan for the MDAB. Therefore, impacts associated with the 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.

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 AAQS. Although the area of the MDAB where the Project site 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 and soil disturbance) 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.

Implementation of the Project would generate criteria air pollutant emissions from entrained dust, off-road equipment, vehicle emissions, architectural coatings, and asphalt pavement application. Entrained dust results from the exposure of earth surfaces to wind from the direct disturbance and movement of soil, resulting in PM_{10} and $PM_{2.5}$ emissions. The Project would be required to comply with MDAQMD Rule 403 to control dust emissions generated during the

grading activities. Internal combustion engines used by construction equipment, haul trucks, vendor trucks (i.e., delivery trucks), and worker vehicles would result in emissions of VOCs, NO_x, CO, PM_{10}, and $PM_{2.5}$. The application of architectural coatings, such as exterior application/interior paint and other finishes, and application of asphalt pavement would also produce VOC emissions.

CalEEMod calculates maximum daily emissions for summer and winter periods. As such, the estimated maximum daily construction emissions for both summer and winter periods are summarized in Table 4.2-8. These estimates include quantitative reductions from implementation of PDF-CON-1 (Heavy-Duty Off-Road Construction Equipment Requirements/Restrictions), PDF-CON-5 (Dust Control Measures), and PDF-CON-7 (Architectural Coating Requirements).[8] Detailed construction model outputs are presented in Appendix B-1.

Table 4.2-8. 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	2.83	39.52	69.86	0.12	15.89	6.59
2025	5.37	27.93	83.17	0.10	11.00	3.15
2026	--	--	--	--	--	--
Winter						
2024	5.23	39.89	69.41	0.12	15.89	6.59
2025	4.71	28.67	65.97	0.10	11.00	3.15
2026	97.29	7.20	10.76	0.01	1.64	0.40
Maximum Daily Emissions	**97.29**	**39.89**	**83.17**	**0.12**	**15.89**	**6.59**
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; 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
Emissions estimates include Tier 4 interim engines for equipment greater than 150 horsepower and electric generators less than 25 horsepower per PDF-CON-1, watering of the active sites two times per day and limiting speeds on unpaved roads to 25 miles per hour per PDF-CON-5, and architectural coatings with VOCs content less than 10 grams per liter per PDF-CON-7.

As depicted in Table 4.2-8 above, short-term construction criteria pollutant emissions generated by the Project would not exceed the respective MDAQMD thresholds and would result in a less-than-significant impact.

Long-Term Operational Impacts

Operation of the Project would generate criteria pollutant emissions from mobile sources (vehicular traffic), area sources (consumer products, architectural coatings, landscaping equipment), and stationary sources (fire pumps). Notably, the Project would include all-electric buildings (i.e., no natural gas), as identified in Chapter 3, Project Description, of this EIR. The Project would also include many PDFs to minimize emissions, of which PDF-OP-1 (Zero-Emission Equipment) and PDF-OP-11 (Fire Pump Requirements) were accounted for in the quantitative

[8] The Project includes additional PDFs that pertain to construction, but quantitative criteria air pollutant reductions from these other PDFs cannot be determined at this time.

assessment.[9] Table 4.2-9 summarizes the unmitigated maximum daily operational emissions associated with the Project. Detailed operational model outputs are presented in Appendix B-1.

Table 4.2-9. 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	21.31	223.31	345.57	2.80	143.49	40.40
Area	69.05	--	--	--	--	--
Energy	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.00	0.00	0.00	0.00	0.00	0.00
Stationary	0.66	0.19	1.67	0.00	0.01	0.01
Total Daily Summer Emissions	**91.02**	**223.50**	**347.24**	**2.81**	**143.50**	**40.41**
Winter						
Mobile	19.45	235.84	249.30	2.72	143.46	40.39
Area	69.05	--	--	--	--	--
Energy	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.00	0.00	0.00	0.00	0.00	0.00
Stationary	0.66	0.19	1.67	0.00	0.01	0.01
Total Daily Winter Emissions	**89.16**	**236.03**	**250.98**	**2.72**	**143.47**	**40.40**
Maximum Daily Emissions	**91.02**	**236.03**	**347.24**	**2.81**	**143.50**	**40.41**
MDAQMD Threshold	137	137	548	137	82	65
Threshold Exceeded?	**No**	**Yes**	**No**	**No**	**Yes**	**No**

Source: Appendix B-1.
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.
Emissions estimates account for the all-electric buildings and no natural gas combustion (and thus no energy source emissions), as well as zero emission cargo handling and landscaping equipment per PDF-OP-1 and Tier 4 interim fire pump engines per PDF-OP-11.

As shown in Table 4.2-9, Project operations would result in exceedances of regional thresholds for emissions of NO_x and PM_{10}, primarily associated with mobile source vehicles (about 99.9% of NO_x and PM_{10}), even after implementation of PDFs. Although many PDFs have been identified that apply to mobile sources (PDF-DES-3, PDF-DES-4, PDF-DES-6, PDF-OP-2, PDF-OP-3, PDF-OP-4, PDF-OP-5, PDF-OP-6, and PDF-OP-9), quantitative reductions from these mobile source PDFs cannot be determined at this time and neither the Project Applicant nor the Town can substantively or materially affect reductions in Project on-road mobile source emissions beyond what is already required by regulation. No feasible mitigation measures or PDFs 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.

[9] The Project includes additional PDFs that pertain to operations, but quantitative criteria air pollutant reductions from these other PDFs cannot be determined at this time.

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 VOC and NO_x. 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 all feasible reduction measures identified.

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 (CARB 2023b). 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) (CARB 2023c). 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) (CARB 2023d). 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) (CARB 2023f). 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 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, and the full amicus briefs are provided in Appendix B-3.

In requiring a health impact type of analysis for criteria air pollutants, it is important to understand how O_3 and PM are formed, dispersed, and regulated. The formation of O_3 and PM in the atmosphere, as secondary pollutants,[10] 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, 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. 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

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

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)[11] and the EPA Benefits Mapping and Analysis Program (BenMAP or BenMAP–Community Edition [CE]).[12] 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 $PM_{2.5}$.[13] To date, the five publicly available HIAs reviewed 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

11 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 2023c).

12 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. 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 $PM_{2.5}$.

13 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).

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 implementation of all feasible reduction measures as identified in the rigorous suite of PDFs, and thus the Project would potentially result in health effects associated with those pollutants. Because construction of the Project would not exceed any MDAQMD thresholds, and operation of the Project would not exceed the MDAQMD thresholds for CO, SO_x, or $PM_{2.5}$, 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 would not be 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}, and no additional feasible mitigation measures or PDFs beyond those already identified exist that would reduce these emissions to levels that are less than significant, 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?

Significant and Unavoidable Impact. The potential impact of Project-generated air pollutant emissions at sensitive receptors has been considered. 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 2020). There are three existing residences proximate to the Project sites, the closest of which are about 205 feet to the south of the Cordova Complex site (along Dachshund Avenue) and 305 feet to the east of the Quarry at Pawnee site (along Flint Road), as well as additional scattered rural residences along the Project's haul routes. The Fresenius Medical Care Distribution Center is located approximately 0.6 to 1 mile south and southeast and the Victor Valley College Regional Public Safety Training Center is located approximately 0.1 to 0.7 miles to the south and southwest of the Project site, too far to be considered sensitive receptors.

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, and operation of the Project would not exceed the MDAQMD thresholds for CO, SO_x, or $PM_{2.5}$, 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}, and no additional feasible mitigation measures or PDFs beyond those already identified exist that would reduce these emissions to levels that are less than significant, 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 thresholds 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, Thresholds of Significance, 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). As described in Appendix C, all roads and intersections with Project traffic 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, Thresholds of Significance (Methodology), a construction HRA was performed to estimate the Maximum Individual Cancer Risk and the Chronic Hazard Index for existing residential receptors as a result of Project construction. Results of the construction HRA are presented in Table 4.2-10. Detailed model outputs are presented in Appendix B-2.

Table 4.2-10. Construction Health Risk Assessment Results – Unmitigated

Impact Parameter	Units	Project Impact	CEQA Threshold	Level of Significance
Maximum Individual Cancer Risk – Residential	Per Million	1.77	10	Less than Significant
Chronic Hazard Index – Residential	Index Value	0.0017	1.0	Less than Significant

Source: Appendix B-2.
Note: CEQA = California Environmental Quality Act.
Risk estimates account for implementation of Tier 4 interim engines for equipment greater than 150 horsepower and electric generators less than 25 horsepower (PDF-CON-1).

As shown in Table 4.2-10, the DPM emissions from construction of the Project would result in a Maximum Individual Cancer Risk of about 1.77 in 1 million and a Chronic Hazard Index of 0.0017, which would both be below the respective MDAQMD significance threshold and would result in a less-than-significant impact.

Operational Health Risk

As discussed in Section 4.2.3, Thresholds of Significance (Methodology), an operational HRA was performed to estimate the Maximum Individual Cancer Risk and the Chronic Hazard Index for existing residential receptors as a result of Project operations. Results of the operational HRA without mitigation are presented in Table 4.2-11. Detailed model outputs are presented in Appendix B-2.

Table 4.2-11. Operational Health Risk Assessment Results – Unmitigated

Impact Parameter	Units	Project Impact	CEQA Threshold	Level of Significance
Maximum Individual Cancer Risk – Residential	Per Million	6.98	10	Less than Significant
Chronic Hazard Index – Residential	Index Value	0.0016	1.0	Less than Significant

Source: Appendix B-2.
Note: CEQA = California Environmental Quality Act.
Risk estimates account for implementation of zero emission cargo handling and landscaping equipment (PDF-OP-1) and Tier 4 interim fire pump engines (PDF-OP-11).

As shown in Table 4.2-11, Project operations would result in a Maximum Individual Cancer Risk of about 6.98 in 1 million at the maximally exposed residence, which is less than the significance threshold of 10 in 1 million. Project operations would result in a Chronic Hazard Index of 0.0016, which is below the 1.0 significance threshold. The Project's operational health risk impacts would be less than significant.

Valley Fever

As discussed in Section 4.2.1, Existing Conditions, under the subsection Valley Fever, Valley Fever is not highly endemic to San Bernardino County with an incident rate of 11.4 cases per 100,000 people (CDPH 2021). In contrast, in 2021 the statewide annual incident rate was 20.1 per 100,000 people. The California counties considered highly endemic for Valley Fever include Kern (306.2 per 100,000), Kings (108.3 per 100,000), Tulare (65.8 per 100,000), San Luis Obispo (61.0 per 100,000), Fresno (39.8 per 100,000), Merced (28.3 per 100,000), and Monterey (27.0 per 100,000), which accounted for 52.1% of the reported cases in 2021 (CDPH 2021).

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).

In order to reduce fugitive dust from the Project and minimize adverse air quality impacts, the Project would employ PDFs that address dust in accordance with the MDAQMD Rules 401 and 403.2 and PDF-CON-5, which would 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 2022).

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 mitigation 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.

Over the life of the Project, odors may result from storage of municipal solid waste pending its transport to area landfills. Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with the Town's solid waste regulations.

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 impacts related to air quality?

Significant and Unavoidable Impact. As indicated above, by its nature, air pollution is largely a cumulative impact. The geographic context is the MDAB. Assuming all mobile source emissions are included in the Project's criteria air pollutant emissions inventory prior to comparing emissions to the MDAQMD thresholds represents a conservative assumption because many of the heavy-duty trucks that CEQA forces the agency to assume are "caused" by the project are in fact already operating within the region due to existing goods movement patterns. Thus, in reality, speculative warehouse projects, such as the Project, are not really causing the creation of all new truck trips but instead are diverting them to different points of distribution origin. Nevertheless, this EIR conservatively assumes that all truck trips assigned to the project are in fact "new" trips when in fact this is likely not the case. It is acknowledged that due to the conservative assumed trip length for Project trucks that is set forth in this EIR, that portions of truck trips and associated mobile source emissions could possibly occur outside of the MDAB and within other air basins. However, at this stage of the environmental analysis, there is no reliable forecast of truck trip origins and destinations for 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 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 4.2-8 above, daily construction emissions associated with the Project would not exceed the MDAQMD significance thresholds. However, as presented in the preceding analysis, Project operational-source air pollutant emissions would result in exceedances of regional thresholds for emissions of NO_X and PM_{10}, even after implementation of all feasible reduction measures. Although many PDFs have been identified that apply to mobile sources (PDF-DES-3, PDF-DES-4, PDF-DES-6, PDF-OP-2, PDF-OP-3, PDF-OP-4, PDF-OP-5, PDF-OP-6, and PDF-OP-9) and would reduce emissions to the extent feasible, since neither the Project Applicant nor the Town have regulatory authority to control tailpipe emissions, no feasible PDFs or mitigation measures exist that would reduce these emissions to levels that are less than significant. As such, Project operational-source NO_X and PM_{10} emissions that exceed 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 a potentially significant impact with regard to conflicting with or obstructing implementation of an applicable air quality plan. As described under the impact analysis (Threshold A), the Project would implement a rigorous suite of PDFs that have been developed to reduce emissions from short-term construction sources (i.e., off-road equipment, on-road vehicles, and architectural coatings) and from long-term operational sources (i.e., off-road equipment, on-road vehicles, energy, water, waste, and stationary equipment). Project construction-source emissions would not exceed applicable MDAQMD regional thresholds. However, Project operational-source air pollutant emissions would result in exceedances of regional thresholds for emissions of NO_x and PM_{10}, primarily associated with mobile source vehicles (about 99.9% of NO_x and PM_{10}), even after implementation of PDFs. Although many PDFs have been identified that apply to mobile sources (PDF-DES-3, PDF-DES-4, PDF-DES-6, PDF-OP-2, PDF-OP-3, PDF-OP-4, PDF-OP-5, PDF-OP-6, and PDF-OP-9) and would help to reduce emissions, quantitative reductions from these mobile source PDFs cannot be determined at this time. No additional feasible mitigation measures have been identified that could reduce operational emissions to below the MDAQMD thresholds for NO_x and PM_{10}. 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?

Construction of the Project would result in a less-than-significant impact related to criteria pollutant emissions. 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}). All feasible reduction measures have been accounted for in the rigorous of suite of PDFs for the Project, which would reduce emissions from off-road equipment, on-road vehicles, energy, water, waste, and stationary equipment. No additional feasible mitigation measures have been identified that could reduce the Project's impacts; therefore, 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, TACs, and spores of the *Coccidioides immitis* fungus (which can result in Valley Fever). However, since the Project could also result in exceedances of MDAQMD significance thresholds for NO_X and PM_{10}, even after implementation of all feasible reduction measures as outlined in the identified PDFs, the potential health effects associated with criteria air pollutants are conservatively considered significant and unavoidable. No additional feasible mitigation measures have been identified that could reduce the Project's impacts.

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 a less-than-significant impact 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?

Construction of the Project would result in a less-than-significant cumulative air quality impact; however, despite implementation of all feasible reduction measures identified in the suite of PDFs for the Project, operational-source NO_X and PM_{10} emissions exceedances of applicable MDAQMD regional thresholds would be significant and unavoidable, and thus, cumulatively considerable. No additional feasible mitigation measures have been identified that could reduce the Project's impacts.

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4.3 Biological Resources

This section describes existing conditions related to biological resources, identifies associated regulatory requirements, evaluates potential project and cumulative impacts, and identifies mitigation measures for any significant or potentially significant impacts related to the implementation of the Cordova Complex and Quarry at Pawnee Warehouse Project (Project).

No comments regarding biological resources were received during the scoping period for this environmental impact report (EIR). All scoping comment letters received are provided in Appendix A.

This analysis is based, in part, on the Biological Technical Report prepared for the Project by Glenn Lukos Associates (GLA) in January 2024 (Appendix D), Mohave Ground Squirrel Report prepared for the Project by Dipodomys Ecological Consulting LLC (DEC) in August 2023 (Appendix D), and Jurisdictional Delineation Report prepared for the Project by GLA in October 2023 (Appendix D). 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.

4.3.1 Existing Conditions

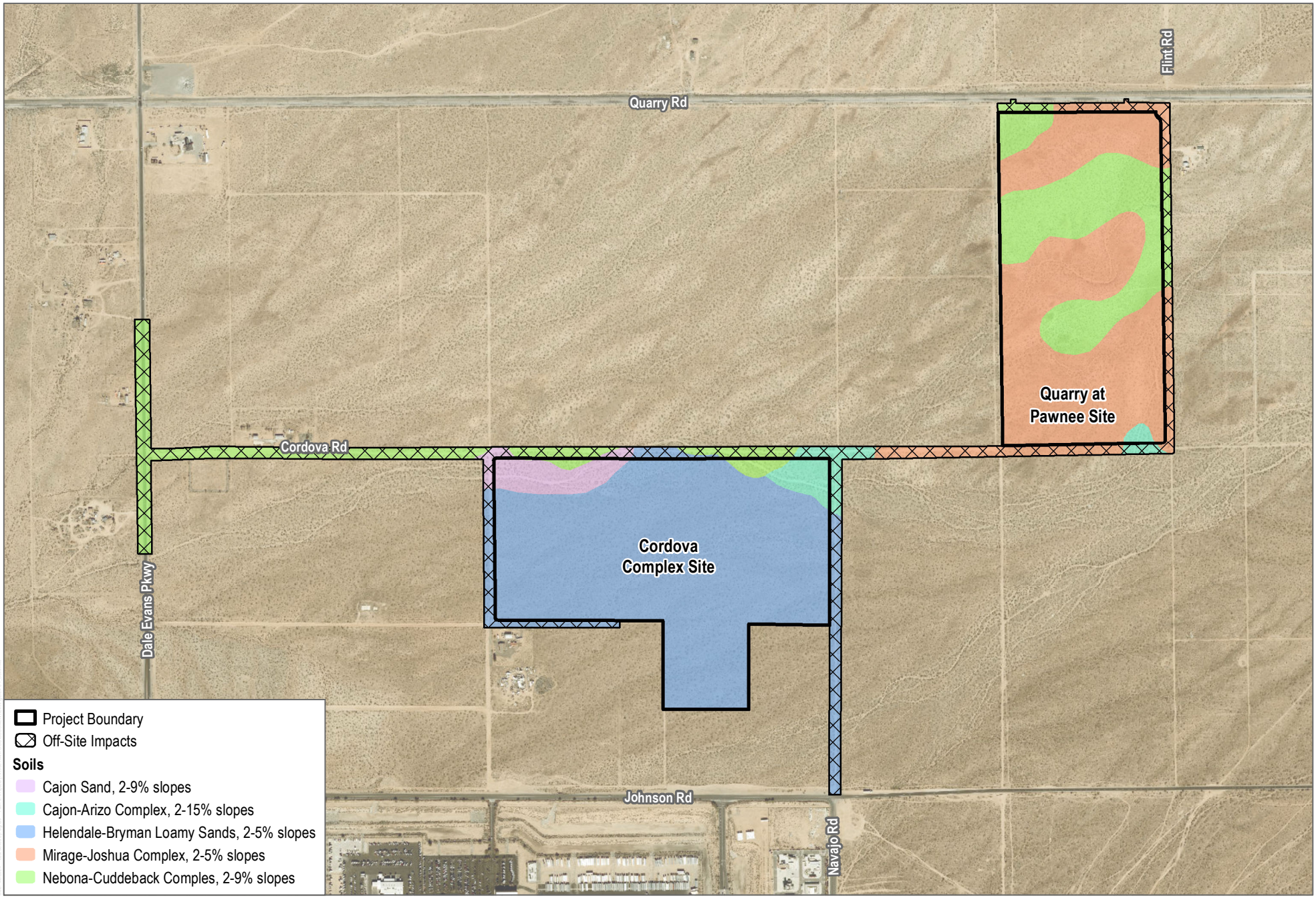
The following discussion summarizes the existing biological resources present within the Project site which includes on-site and off-site areas. A description of the existing vegetation communities, special-status species, and jurisdictional waters, including wetland and wildlife corridors, are discussed below. Note that the Biological Technical Report (Appendix D) and Section 4.3.4, Impact Analysis, of this EIR analyze the entire Project site and off-site improvement areas (approximately 198.4 acres) for direct and indirect impacts.

Topography and Soils

The Project site is within the Mojave Desert within the Town of Apple Valley (Apple Valley or Town). The Town is primarily on alluvial slopes of the Mojave River floodplain, at the southern edge of the Mojave Desert. The topography gradually inclines toward 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 to the north, Fairview Mountain is to the northeast, and the Granite Mountains are to the southeast.

On-site portions of the Project site are composed of undeveloped vacant land. The off-site areas include vacant land, dirt roads (Cordova Road, Dachshund Avenue, Navajo Road, Flint Road), and paved roads (Quarry Road, Dale Evans Parkway). The topography within the Project site is a flat plane. Elevation ranges from approximately 3,067 feet above mean sea level (amsl) in the west to 3,100 feet amsl in the east for the Cordova Complex site and approximately 3,125 feet amsl in the southwest to 3,175 feet amsl in the northeast for the Quarry at the Pawnee site. Adjacent land uses include primarily undeveloped lands to the north, east, and west, and commercial development south of the Cordova Complex site. A single rural residence is located adjacent to the Cordova Complex site's southwestern corner and a single rural residence is located east of the Quarry at Pawnee site, across Flint Road.

According to the U.S. Department of Agriculture's Natural Resource Conservation Service's Web Soil Survey (USDA 2023), the Project site consists of five soil complexes: Cajon Sand (2% to 9% slopes), Cajon-Arizo Complex (2% to 15% slopes), Helendale-Bryman Loamy Sands (2% to 5% slopes), Mirage-Joshua Complex (2% to 5% slopes), and Nebona-Cuddeback Complex (2% to 9% slopes). These soil types are presented in Figure 4.3-1.



SOURCE: USDA NRCS; GLA 2024; County of San Bernardino; Open Street Map; ESRI World Imagery

DUDEK

0 500 1,000 Feet

FIGURE 4.3-1

Soils

Cordova Complex and Quarry at Pawnee Warehouse Project

Vegetation Communities and Land Covers

There are two vegetation communities or land cover types within the Project site, as identified in Table 4.3-1 and Figure 4.3-2. The Project site is comprised of creosote bush scrub and disturbed habitat. Representative site photographs are included as Exhibit 5 of Appendix D.

Vegetation communities within the Project site were mapped by GLA according to the California Department of Fish and Wildlife (CDFW) List of Vegetation Alliances and Associations (or Natural Communities List) (CDFW 2023a), which is based on A Manual of California Vegetation, Second Edition (Sawyer et al. 2008), which is the California expression of the National Vegetation Classification. Where necessary, deviations were made when areas did not fit into exact habitat descriptions. Vegetation communities were mapped based on the dominant plant species present. Vegetation communities were mapped in the field directly onto a 650-scale (1" =650') aerial photograph. Representative site photographs are included as Exhibit 5 of Appendix D.

Table 4.3-1. Existing Vegetation Communities, Floristic Alliances and Associations, and Land Cover Types within the Project Site

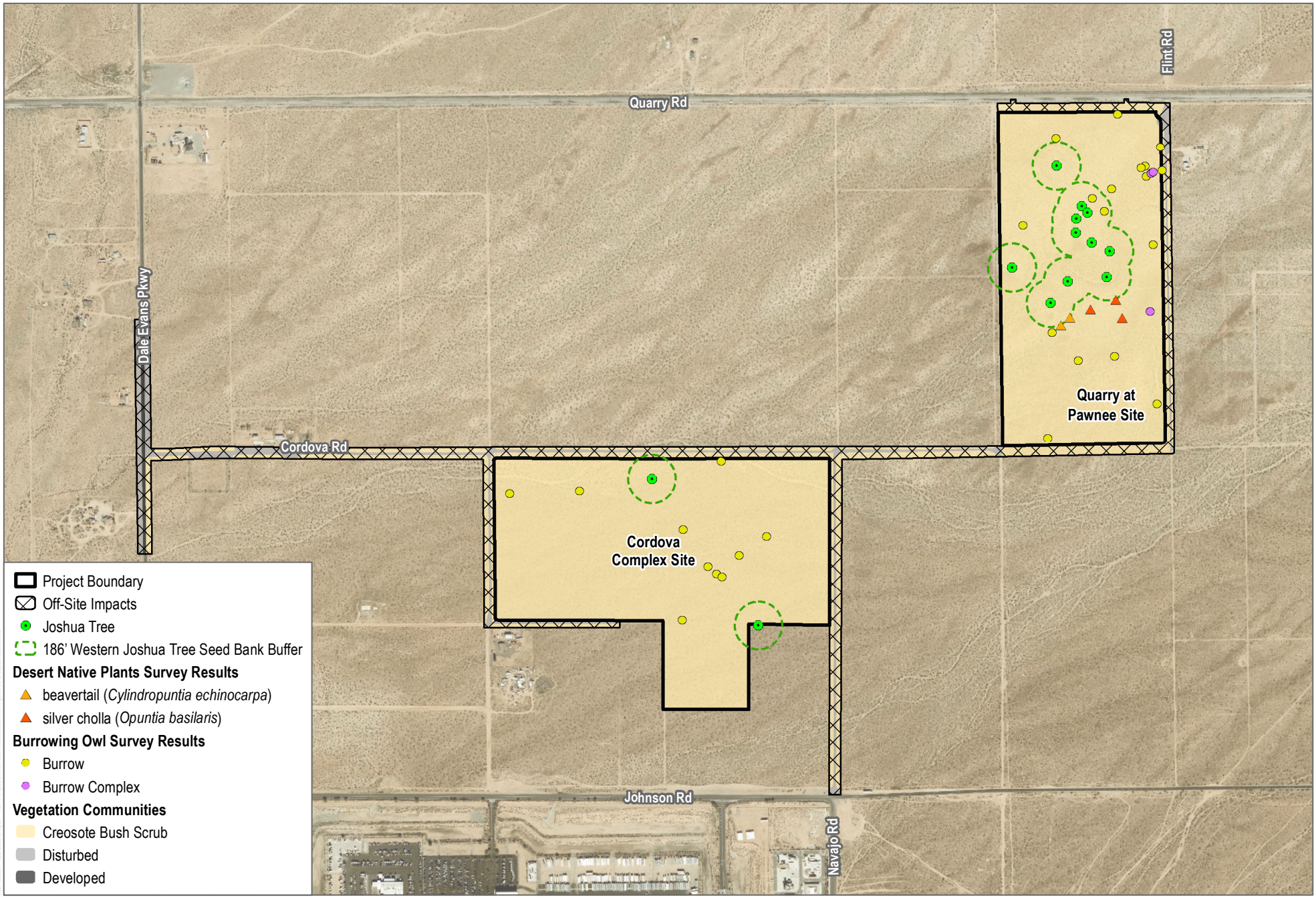
Floristic Alliance	Association	Vegetation Community[1]	Project Site (acres)	Off-Site Areas (acres)	Total (acres)[2]
Cordova Complex Site					
Larrea tridentata Shrubland	*Larrea tridentata*	Creosote bush scrub	86.4	17.4	103.8
N/A	N/A	Disturbed habitat	—	8.1	8.1
Quarry at Pawnee Site					
Larrea tridentata Shrubland	*Larrea tridentata*	Creosote bush scrub	75.7	10.3	85.9
N/A	N/A	Disturbed habitat	—	0.6	0.6
Total[2]			162.1	36.3	198.4

Source: Appendix D.
Notes: N/A = not applicable.
1 The spatial distribution of the vegetation communities and land covers are presented in Figure 4.3-2.
2 Total acreages may not sum exactly due to rounding.

Creosote Bush Scrub

Creosote bush scrub, or *Larrea tridentata* alliance, is recognized by the Natural Communities List, and the communities include creosote bush (*Larrea tridentata*) as the dominant shrub, exceeding all other shrubs in cover. If white bursage (*Ambrosia dumosa*) or brittlebush (*Encelia farinosa*) are present, their cover is less than three times the cover of creosote bush, or if white bursage is present, it is less than two times the cover of creosote bush. Creosote bush scrub occurs on alluvial fans, bajadas, upland slopes, and minor intermittent washes in soils that are well drained and sometimes with desert pavement (CNPS 2023b).

Creosote bush scrub composes the majority of the Project site. Creosote bush is the dominant shrub species, with a lower cover of white bursage (*Ambrosia dumosa*), cheesebush (*Ambrosia salsola*), fourwing saltbush (*Atriplex canescens* ssp. *canescens*), and desert Nevada ephedra (*Ephedra nevadensis*). Additionally, western Joshua trees (*Yucca brevifolia*) are scattered throughout the creosote bush scrub community within the Project site; however, western Joshua tree cover is less than 1% of the Project site and therefore does not warrant its own community.



SOURCE: GLA 2024; County of San Bernardino; Open Street Map; ESRI World Imagery

DUDEK

0 500 1,000 Feet

FIGURE 4.3-2

Biological Resources

Cordova Complex and Quarry at Pawnee Warehouse Project

Creosote bush scrub is ranked as S5 and is therefore not considered a sensitive biological resource by CDFW under CEQA (CDFW 2023a).

Disturbed Habitat

Disturbed habitat refers to areas that have had physical anthropogenic disturbance and, as a result, cannot be identified as a native or naturalized vegetation association. However, these areas do have a recognizable soil substrate. If vegetation is present, it is almost entirely composed of non-native vegetation, such as ornamentals or ruderal exotic species (Oberbauer et al. 2008).

Disturbed habitat includes the existing dirt roads within the Project site, and vacant land immediately adjacent to the Project site, and the paved roads north and west of the Project site.

Disturbed habitat is unranked since it is not recognized by the Natural Communities List and is therefore not considered a sensitive biological resource by CDFW under CEQA (CDFW 2023a).

Plants and Wildlife Observed

Biological field surveys were conducted by GLA, including biological reconnaissance and vegetation mapping, habitat assessment, aquatic resource delineation, western Joshua tree inventory, protocol presence/absence surveys for Mojave desert tortoise (*Gopherus agassizii*), Crotch's bumble bee (*Bombus crotchii*), burrowing owl (*Athene cunicularia*), and Mohave ground squirrel (*Xerospermophilus mohavensis*). Focused special-status plant surveys were conducted within the Project site from October 2022 through September 2023 by GLA (Table 2-1 of Appendix D). All plant and wildlife species observed during the surveys were recorded.

Plants

A total of 53 species of native or naturalized plants, 51 native (96%) and 2 non-native (4%), were recorded within the Project site. GLA biologists recorded 37 species and DEC biologists observed an additional 16 species of native or naturalized plants. A list of plant species observed by GLA within the Project site is provided in Appendix A of Appendix D, and a list of plant species observed by DEC is provided in Appendix D of Appendix D.

Wildlife

A total of 53 wildlife species, consisting of 50 native species (94%) and 3 non-native species (6%), were recorded within the Project site or vicinity during surveys. A list of wildlife species observed by GLA within the Project site is provided in Appendix B of Appendix D, and a list of wildlife species observed by DEC is provided in Appendix D of Appendix D.

GLA biologists recorded 29 wildlife species consisting of 23 birds, including American kestrel (*Falco sparverius*), lesser goldfinch (*Spinus psaltria*), western kingbird (*Tyrannus verticalis*), red-tailed hawk (*Buteo jamaicensis*), Anna's hummingbird (*Calypte anna*), American crow (*Corvus brachyrhynchos*), horned lark (*Eremophila alpestris*), turkey vulture (*Cathartes aura*), and ruddy ground dove (*Columbina talpacoti*); 2 invertebrates: painted lady (*Vanessa cardui*) and anise swallowtail (*Papilio zelicaon*); 2 mammals: black-tailed jackrabbit (*Lepus californicus*) and white-tailed antelope squirrel (*Ammospermophilus leucurus*); and 2 reptiles: tiger whiptail (*Aspidoscelis tigris*) and coachwhip (*Coluber flagellum*).

DEC biologists observed an additional 23 wildlife species, including 9 birds, consisting of house finch (*Haemorhous mexicanus*), ash-throated flycatcher (*Myiarchus cinerascens*), lesser nighthawk (*Chordeiles acutipennis*), black-

tailed gnatcatcher (*Polioptila melanura*), barn swallow (*Hirundo rustica*), Wilson's warbler (*Cardellina pusilla*), rock wren (*Salpinctes obsoletus*), Bell's sparrow (*Artemisiospiza belli*), and Say's phoebe (*Sayornis saya*); 8 mammals, consisting of desert kit fox (*Vulpes macrotis arsipus*), kangaroo rat (*Dipodomys* sp.), spiny pocket mouse (*Chaetodipus spinatus*), California ground squirrel (*Otospermophilus beecheyi*), eastern deer mouse (*Peromyscus maniculatus*), and silky pocket mouse (*Perognathus* sp.), coyote (Canis latrans), and domestic dog (*Canis familiaris*); and 6 reptiles, consisting of desert horned lizard (*Phrynosoma platyrhinos*), long-nosed leopard lizard (*Gambelia wislizenii*), gopher snake (*Pituophis catenifer*), Mohave rattlesnake (*Crotalus scutulatus*), side-blotched lizard (*Uta stansburiana*), and Mohave patch-nosed snake (*Salvadora hexalepis*).

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 (CNPS) (particularly California Rare Plant Rank [CRPR] 1A, presumed extinct in California and rare or extinct elsewhere; CRPR 1B, rare, threatened, or endangered throughout its range; CRPR 2A, presumed extinct in California, common elsewhere; and CRPR 2B, rare, threatened, or endangered in California, common elsewhere).

GLA biologists performed a desktop review of relevant literature and geographic information system (GIS) data to evaluate the potential for special-status plant species to occur within the Project site. Each special-status plant species was assigned a rating of "does not occur," "not detected," or "not expected to occur" based on relative location to known occurrences, vegetation community, soil, and elevation. Based on the results of the literature review and California Natural Diversity Database (CNDDB) and CNPS database searches, 30 special-status plant species were reported as occurring in the vicinity of the Project site.

Before conducting special-status plant surveys, GLA biologists conducted reference population checks to ensure the focal special-status plant species were in bloom and identifiable. Barstow woolly sunflower (*Eriophyllum mohavense*), beaver dam breadroot (*Pediomelum castoreum*), crowned muilla (*Muilla coronata*), Mojave fish-hook cactus (*Sclerocactus polyancistrus*), desert cymopterus (*Cymopterus deserticola*), and purple-nerve cymopterus (*Cymopterus multinervatus*) were observed in San Bernardino County and would have been detectable during the focused surveys. California androsace (*Androsace elongata* ssp. *acuta*) and Mojave spineflower (*Chorizanthe spinosa*) were observed in Kern County and white pygmy-poppy (*Canbya candida*) and ribbed cryptantha (*Johnstonella costata*) were observed in Riverside County and would have been detectable during the focused surveys. Species that can be identified with or without blooming flowers such as short-joint beavertail (*Opuntia basilaris* var. *brachyclada*) did not need reference checks.

The western Joshua tree inventory survey and focused special-status plant surveys for the Project site were conducted on October 19, 2022 and January 12, 2024, and March 5 and 31, 2023, respectively. In addition, desert native plants, in accordance with the California Desert Native Plants Act (CDNPA) and Chapter 9.76 of the Apple Valley Municipal Code (Town of Apple Valley 2023), were also considered target species.

Based on the results of the literature review, database searches, and the focused special-status plant surveys, the western Joshua tree was the only special-status plant species observed within the Project site. Western Joshua tree is a state candidate for listing and is further discussed in the following below. No other listed species or non-listed CRPR 1 or CRPR 2 plants were observed. Since the focused surveys were conducted during the appropriate blooming period, all other special-status plants were not detected (Table 4-2 of Appendix D). In addition, there is no USFWS-designated, or proposed, critical habitat for listed plant species overlapping the Project site (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, Mojave 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 from 1,310 to 6,560 feet amsl and typically blooms in April and May (CNPS 2023a).

Fourteen western Joshua tree individuals were observed in October 2022 within the western Joshua tree inventory survey area (Project site and associated 50-foot census buffer) (Figure 4.3-2). Two individual trees were observed within the Cordova Complex site and twelve within the Quarry at Pawnee site. No western Joshua trees were mapped within the associated 50-foot census buffer.

Further details on phenological data of the fourteen western Joshua tree individuals observed is provided in Table 4-3 of Appendix D.

Desert Native Plants

In addition to the western Joshua trees, two desert native plant species were observed within the Project site during the focused desert native plant survey (Figure 4.3-2). Specifically, two beavertail (*Opuntia basilaris*) and three silver cholla (*Cylindropuntia echinocarpa*), were observed within the Quarry at Pawnee site while no desert native plants were observed within the Cordova Complex site.

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 and as sensitive by USFWS.

Like special-status plants, GLA biologists performed a desktop review of literature, existing documentation, and GIS data to evaluate the potential for special-status wildlife species to occur within the Project site. Each special-status wildlife species was assigned a rating of “does not occur,” “not detected,” “not expected to occur,” or “potential to occur” based on relative location to known occurrences and vegetation community/habitat association. Based on the results of the literature review and database searches, 33 special-status wildlife species were reported as occurring in the vicinity of the Project site. Of these, nine special-status wildlife species were determined to have a potential to occur within the Project site based on habitat present and previous known locations in the CNDDB (CDFW 2023b): American badger (*Taxidea taxus*), Bendire’s thrasher (*Toxostoma bendirei*), burrowing owl, Crotch’s bumble bee, desert kit fox (*Vulpes macrotis arsipus*), LeConte's thrasher (*Toxostoma lecontei*), loggerhead shrike (*Lanius ludovicianus*), Mohave ground squirrel, and Mojave desert tortoise (Table 4-2 of Appendix D).

No birds of prey or raptors or suitable habitat for raptors is present on the site. No special-status wildlife species were observed within the Project site.

Protocol surveys for burrowing owl, Crotch’s bumble bee, Mohave ground squirrel, and Mojave desert tortoise were negative. All the above-listed species are detailed in the following discussion.

American Badger

American badger is a California Species of Special Concern. American badgers prefer open scrub or grassy areas and are found in many parts of North America spanning Mexico, the United States, and Canada (USGS 2024).

American badger has a moderate potential to occur[1] within the Project site due to the presence of suitable open creosote bush scrub habitat with friable soils for burrowing.

Bendire's thrasher

Bendire's thrasher is a California Species of Special Concern. Bendire's thrasher is found from sea level up to 5,900 feet amsl (England and Laudenslayer Jr. 1993). In general, this species is found in the southwestern United States deserts ranging from southeastern California, southernmost Nevada, southernmost Utah, southern Colorado south through New Mexico, and throughout the Sonora Desert. In Mexico, species distribution is believed to be in Sonora, with wintering in Tiburon Island and northern Sinaloa (Blake 1953). The species appears to be mostly confined to the Mojave Desert (Unitt 2004) and northwestern Mexico deserts (England and Laudenslayer Jr. 1993).

Preferred breeding habitat for Bendire's thrasher is typically in open grasslands, shrubland, or woodland with scatters trees and shrubs (England and Laudenslayer Jr. 1993). At lower elevations, Bendire's thrasher is associated with deserts and grasslands, such as the Mojave desert scrub. Characteristic plant species within areas where it occurs include western Joshua tree, Mojave yucca (*Yucca schidigera*), cholla cactus (*Opuntia* spp.) and other succulents, palo verde (*Cercidium* spp.), mesquite (*Prosopis* spp.), catclaw (*Acacia* spp.), desert-thorn (*Lycium* spp.), and agave (*Agave* spp.) (England and Laudenslayer Jr. 1989a, 1989b, 1993).

Bendire's thrasher has a moderate potential to occur[2] within the Project site. Suitable nesting habitat such as Joshua trees, cholla, and other desert shrubs, are present within the Project site.

Burrowing Owl

Burrowing owl is a USFWS Bird of Conservation Concern and 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 in 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 because they are required for nesting, roosting, cover, and caching prey (Coulombe 1971; Green and Anthony 1989; Haug et al. 1993; Martin 1973). 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 proximity (Gervais et al. 2008). Debris piles, riprap, culverts, and pipes can be used for nesting and roosting.

[1] American badger was determined to have a low potential to occur in the Biological Technical Report prepared by Glenn Lukos Associates. However, based on Dudek's analysis of the species' habitat needs and presence of suitable habitat on site, the potential to occur has been updated to "moderate" in this document.

[2] Bendire's thrasher was determined to have a low potential to occur in the Biological Technical Report prepared by Glenn Lukos Associates. However, based on Dudek's analysis of the species' habitat needs and presence of suitable habitat on site, the potential to occur has been updated to "moderate" in this document.

No direct observations of burrowing owls nor active burrows (i.e., feathers, whitewash, casts, and fresh prey remains) were observed within the Project site during the focused burrowing owl surveys conducted by GLA between March and June 2023, therefore this species is presumed absent.

Crotch's Bumble Bee

The Crotch's bumble bee is a candidate for listing as an endangered species in the State of California as defined by Section 2068 of the Fish and Game Code (CDFW 2023c). This species occurs predominantly within California throughout the Central Valley, Pacific Coast, Mediterranean region, Western Desert, and foothills around most of the southwestern part of the state (Williams et al. 2014). According to CDFW survey considerations, the study area falls within the current and historical range for Crotch's bumble bee (CDFW 2023d).

The Crotch's bumble bee inhabits warm, dry shrublands and open grassland habitats (ForestWatch 2013). Crotch's bumble bee is a generalist forager and visits a variety of flowering plants, however, they are a short-tongued species and therefore prefer to forage on open flowers with short corollas (Hatfield et al. 2018). Plant families most associated with Crotch's bumble bees in California include the Apocyanaceae, Asteraceae, Boraginaceae, Fabaceae, Hydrophyllaceae, and Lamiaceae families (Hatfield et al. 2018). Other reports commonly associate Crotch's bumble bee with plants in the genera *Asclepias*, *Chaenactis*, *Lupinus*, *Medicago*, *Phacelia*, and *Salvia* (Williams et al. 2014).

In California, the Crotch's bumble bee queen flight period is from late February to late October; the peak is in early April, and there is a second pulse in July (Thorp et al. 1983). The flight period for workers and males in California is from late March through September with peaks in early July (Thorp et al. 1983). This species prefers to nest underground in abandoned rodent burrows; however, it also nests aboveground in grass tussocks, abandoned bird nests, rock piles, or dead tree cavities (Hatfield et al. 2018). Little is known regarding overwintering sites used by this species, but it is speculated that the Crotch's bumble bee uses soft disturbed soils, leaf litter, or other debris for overwintering (Goulson 2010, Williams et al. 2014).

Suitable habitat is present within the Project site; however, Crotch's bumble bee was not detected during the focused surveys conducted by GLA between March and May 2023. Therefore, this species is presumed absent from the Project site.

Desert Kit Fox

Desert kit fox is considered a "fur-bearing mammal," protected from take under the California Fish and Game Commission's Mammal Hunting Regulations (Subdivision 2, Chapter 5, Section 460), which effectively protects it from hunting pressure. Desert kit fox is not listed by USFWS or CDFW under any special-status designation. Desert kit fox lives in the open desert, on creosote bush flats, and among sand dunes (NPS 2015).

Desert kit fox was observed by DEC within the Project site during 2023 camera trapping as part of the Mohave ground squirrel focused surveys (Appendix D of Appendix D).

LeConte's Thrasher

LeConte's thrasher is a USFWS Bird of Conservation Concern and a California Species of Special Concern. It is found from below sea level up to 1,600 meters amsl in Southern California deserts from southern Mono County to the Mexican border as well as western and southern San Joaquin Valley (Dobkin and Granholm 2005; Fitton 2008).

Preferred habitat for LeConte's thrasher is open desert wash, desert scrub, alkali desert scrub, and desert succulent shrub habitats; it 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 (*Atriplex* sp.) 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 (Fitton 2008).

This species was not incidentally observed during the GLA surveys; however, the Project site supports suitable nesting and foraging habitat (i.e., desert succulent, Joshua tree). Therefore, there is a moderate potential for this species to occur within the Project site.

Loggerhead Shrike

Loggerhead shrike is a California Species of Special Concern. It is widespread throughout the United States, Mexico, and portions of Canada (Humple 2008). The species is a year-long resident in most of the United States, including California to Virginia and south to Florida and Mexico. In California, although shrikes are widespread at the lower elevations in the state, the largest breeding populations are 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 top 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 incidentally observed during the GLA surveys; however, there is a moderate potential to occur within the Project site due to the presence of suitable nesting and foraging shrubland habitat.

Mohave Ground Squirrel

Mohave ground squirrel is a State of California threatened species under CESA. 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 in desert scrub habitats, usually dominated by creosote bush and desert saltbush scrub, and Joshua tree woodland at elevations between 1,800 and 5,000 feet amsl (Zeiner et al. 1990). Mohave ground squirrels primarily feed on the leaves and seeds of forbs and shrubs including freckled milkvetch (*Astragalus lentiginosus*), Mojave lupine (*Lupinus odoratus*), buckwheat (*Eriogonum* sp.), Russian thistle (*Salsola tragus*), desert pincushion (*Chaenactis* sp.), Cryptantha (*Cryptantha pterocarya*), desert dandelion (*Malacothrix glabrata*), Phacelia (*Phacelia* sp.), wire lettuce (*Stephanomeria* sp.) Anderson's desert thorn (*Lycium andersonii*), spiny horsebrush (*Tetradimya spinosa*), and Joshua tree (Leitner and Leitner 2017).

Mohave ground squirrel was not observed or trapped within the Project site during the focused trapping surveys conducted by DEC between April and July 2023 (Appendix D of Appendix D). There is suitable soil for burrowing and associated plants present, however, the visual survey determined the project sites contain low-quality habitat; off-

site improvement areas were not surveyed since these areas contained mostly developed access roads with some areas of native vegetation that do not provide suitable habitat (Figure 4.3-2). Due to the distance from core population areas and significant barriers to dispersal between the Project site and documented recent occurrences, it was determined that the Mohave ground squirrel is unlikely to colonize the Project site. Based on the discussion above, and since the Mohave ground squirrel is a mobile species that could enter the Project site, this species was determined to have a moderate potential to occur.

Mojave Desert Tortoise

Mojave desert tortoise is a federally and state-listed threatened species. This species' range includes portions of the Mojave and 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).

The 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 production of ephemeral plants (Luckenbach 1982; Turner 1982; Turner and Brown 1982; Bury et al. 1994; Germano et al. 1994). 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 (Germano et al. 1994; USFWS 1994). Soils must be friable enough for digging burrows, but firm enough that burrows do not collapse (USFWS 2011). Although populations of desert tortoise typically inhabit elevations below 5,500 feet amsl, they occur from below sea level to an elevation of 7,300 feet amsl (Luckenbach 1982). Occupied habitat varies from flats and slopes dominated by creosote bush scrub at low elevations to rocky slopes in blackbrush scrub and juniper woodland ecotones at higher elevations (Germano et al. 1994).

No direct observations of desert tortoise or signs (e.g., scat, burrows, pallets, tracks, carcasses, courtship rings, drinking depressions, etc.) were observed during the GLA focused surveys conducted in March 2023. However, the Project site contain suitable sandy soils, ephemeral washes, and creosote scrub to support this species. In addition, the Project site is within a high probability predicted habitat for the species (CDFW 2023e). Therefore, based on the discussion above, and since the Mojave desert tortoise is a mobile species that could enter the Project site, this species was determined to have a moderate potential to occur.

Jurisdictional Resources

The jurisdictional aquatic resources delineation conducted by GLA and presented in Appendix E of Appendix D, identified numerous ephemeral drainages within the Project site that are typical of desert wash systems (Figure 4.3-3). The results of the jurisdictional delineation concluded that non-wetland waters of the state under Regional Water Quality Control Board (RWQCB) jurisdiction within the Project site total approximately 1.63 acres (approximately 16,817 linear feet) (Table 4-5 of Appendix D). The same features within the project site are jurisdictional streambed under CDFW, therefore a total of 1.63 acres (approximately 16,817 linear feet) is regulated by CDFW (Table 4-6 of Appendix D). The ephemeral drainages present are not likely subject to USACE jurisdiction because these features are isolated and do not exhibit a continuous and relatively permanent surface connection to a water of the United States.

It is important to note that the ultimate decision on the amount and location of jurisdictional resources is made by the resource agencies (i.e., USACE, CDFW, and RWQCB), and, therefore, impacts to potential aquatic resources may increase or decrease. See Appendix E of Appendix D for further descriptions of these resources.

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

DUDEK

0 250 500 Feet

FIGURE 3-3

Quarry at Pawnee Site

Cordova Complex and Quarry at Pawnee Warehouse Project

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 Project site is surrounded by undeveloped land and the site and surrounding lands are not designated as a wildlife corridor, linkage, or lands important for movement by various wildlife. Regional wildlife movement was analyzed by the Bureau of Land Management California Desert Connectivity Project (Penrod et al. 2012). The closest linkage identified is located approximately 1.63 miles to the north of Cordova Complex site and 1.35 miles north of the Quarry at Pawnee site. In addition, the Project site does not support wildlife nursery sites such as bird rookeries and heronries, bat maternity roosts, etc. Additionally, the Project site does not occur within any areas mapped as designated or proposed critical habitat by the USFWS (USFWS 2023).

While the Project site does not currently function as a corridor or linkage between two larger habitat blocks, due to the undeveloped land on the Project site, there are opportunities for wildlife to move across the site when migrating through the region. Although the Project site 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 Regulatory Framework

Federal

Federal Endangered Species Act

The federal Endangered Species Act (FESA) of 1973 (16 United States Code [U.S.C.] 1531 et seq.), as amended, is administered by the 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 (ITPs) 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 U.S.C. 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 *Federal Register* 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 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 Part 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 Parts 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 *Federal Register* 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 Section 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 29, 2023, the EPA released guidance further clarifying the definition of waters of the U.S. based on the Sackett v. 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 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).[3] 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 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 Western Joshua Tree Conservation Act (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.

[3] 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 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.

Section 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. Historical court cases have further extended CDFW jurisdiction to include watercourses that seemingly disappear but reemerge elsewhere. 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 CEQA document.

California Native Plant Protection Act

The Native Plant Protection Act of 1977 (Sections 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 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.

Section 15380(b)(1) of the CEQA Guidelines 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 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 Desert Native Plants Act

The purpose of the 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

San Bernardino County General Plan and Development Code

The County of San Bernardino General Plan contains the goals and policies that guide future development within San Bernardino County (County of San Bernardino 2007) and the Countywide Plan (County Policy Plan) was adopted in 2020 (County of San Bernardino 2020). San Bernardino County is divided into three distinct geographic planning regions: the Valley, the Mountains, and the Desert. The Project site occurs within the Desert Planning Region of San Bernardino County. The Desert Planning Region has two goals and policies: (1) to preserve open lands by working with the Bureau of Land Management (BLM) and (2) to ensure that off-highway vehicle use is managed to protect environmentally sensitive resources.

The Project would also need to comply with the Development Code. The San Bernardino Development Code (County of San Bernardino 2014) implements the goals and policies of the General Plan. Chapter 88.01.060, Desert Native Plant Protection, of the San Bernardino County Development Code is a subset of the Plant Protection and Management Code (Chapter 88.01 of the Development Code) and focuses on the conservation of specified desert plant species.

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 CDFW [California Department of Fish and Wildlife] 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.

Town of 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. 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 CDNPA.

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), on-site 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. Section 9.76.040 states the following:

> 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.

Section 9.47.090 – Lighting

Section 9.47.090 contains general performance standards related to light and glare for industrial development in Town. The Project would be required to adhere to this regulation. Section 9.47.090 states the following:

1. Lighting shall be used only for the functional requirements of safety, security, and identification. Unnecessary lighting is prohibited in the interest of energy efficiency and preservation of the night sky views.
2. All glare shall be directed onto the site and away from adjacent properties (Figure 9.47.090-A).

North Apple Valley Industrial Specific Plan

Chapter III, Development Standards and Guidelines, of the North Apple Valley Industrial Specific Plan (NAVISP) (Town of Apple Valley 2012) serves as the NAVISP's Development Code. Chapter III includes design standards related to outdoor lighting including provisions for maintaining the Town's Dark Sky Policy, directing lighting onto a project site and away from adjacent properties, shielding and filtering, and prohibited lighting.

4.3.3 Thresholds of Significance

The significance criteria used to evaluate the Project impacts to biological resources are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, 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 Wildlife 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 Wildlife 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 related to biological resources.

4.3.4 Impact Analysis

This section contains an evaluation of potential environmental impacts associated with the Project related to biological resources. The section describes the methods used in conducting the analysis and evaluates the Project-specific impacts and contribution to significant cumulative impacts, if any are identified.

Methodology

Direct permanent impacts refer to complete loss of a biological resource. For purposes of this analysis, it refers to the area where vegetation clearing, grubbing, or grading replaces biological resources. Direct permanent impacts were quantified by overlaying the proposed impact limits on the biological resources map of the Project. Direct permanent impacts would occur from construction of two warehouse buildings, the Cordova Complex and Quarry at Pawnee. Each site would include also include associated on-site improvements including surface parking and construction of detention basins for on-site drainage and stormwater/rain capture. Off-site roadway improvements would include construction on Dale Evans Parkway, Cordova Road, Navajo Road, Dachshund Avenue, and Flint Road. Off-site utility improvements would include new water infrastructure along Cordova Road, Dachshund Avenue, Doberman Street, and Johnson Road, and new wastewater infrastructure along Cordova Road, between the Cordova and Quarry at Pawnee sites, and along Navajo Road, directly east of the Cordova Complex site.

Indirect impacts are reasonably foreseeable effects caused by a project's implementation on remaining or adjacent biological resources outside the direct disturbance zone. For purposes of this analysis, indirect impacts may affect areas outside the Project boundary and 50-foot Joshua tree survey buffer. Indirect impacts may be short-term and construction-related, or long-term and associated with development in proximity to biological resources.

Cumulative impacts refer to the combined environmental effects of a project and other relevant projects. These impacts may be minor when analyzed individually but become collectively significant as they occur over time.

Impacts

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 survey conducted by GLA on March 5 and 31, 2023; therefore, the Project would have no direct impacts to non-listed special-status plant species within the Project site. The Project site 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 Project site, and this species is further discussed below.

Western Joshua Tree

Western Joshua tree, a candidate for state listing under CESA, was observed and would be directly impacted by the Project. In total, 14 western Joshua tree individuals were observed within the Joshua tree inventory survey areas (Project site plus associated 50-foot buffer). Specifically, two western Joshua trees were observed at the Cordova Complex site and 12 western Joshua trees at the Quarry at Pawnee site. Further details on phenological data of the 14 western Joshua tree individuals observed is provided in Table 4-3 of Appendix D. Based on the site plan, implementation of the Project would result in direct impacts to all 14 of the 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.

Based on the Western Joshua Tree Conservation Act, Fish and Game Code section 1927.3 requires the Project Applicant to mitigate by paying the statutorily prescribed fees. Trees located in the area described in Fish and Game Code section 1927.3 (d) 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

Therefore, the Project would result in direct impacts to 11 Joshua trees one meter or greater but less than five meters in height, and 3 trees less than one meter in height.

As required by MM BIO-1 (Conservation of Western Joshua Trees), mitigation for direct impacts to 14 individuals would be fulfilled through payment through the WJTCA. Additionally, as required by MM BIO-2 (Conservation 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 will be prepared to provide detailed specifications for the Project Applicant to meet the requirements of Chapter 9.76 (Plant Protection and Management Policy) of the Apple Valley Municipal Code to protect, preserve, and mitigate impacts to western Joshua trees. Additionally, provisions of The Western Joshua Tree Conservation Act ITP include the following mitigation measures: 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.

In summary, implementation of MM BIO-1 (Conservation of Western Joshua Tree Lands), MM BIO-2 (Conservation of Desert Native Plants), 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 western Joshua trees to less than significant.

Indirect Impacts

Non-Listed Special Status Plant Species, Western Joshua Tree

No western Joshua tree individuals occur within the 50-foot buffer of the Project site, as stated in Appendix D. Therefore, implementation of the Project would likely not result in any indirect impacts to western Joshua tree. However, implementation of the mitigation measures described below would reduce any potential indirect impacts to western Joshua trees that may occur outside of the Project site and beyond the 50-foot buffer.

Short-Term Construction Impacts

Construction-related, short-term indirect impacts may include inadvertent spillover impacts outside of the construction footprint, chemical spills, stormwater erosion and sedimentation, dust pollution, 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 impact footprint. MM BIO-5 (Education Program) would provide construction personnel with training related to western Joshua trees 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 Property Boundaries) requires the Project site to be fenced, staked, or flagged area that clearly delineates where impacts can occur within the Project site. Additionally, the Project would be required to comply with the National Pollutant Discharge Elimination System (NPDES) Construction General Permit, which requires development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) to manage runoff and water quality during construction. The SWPPP would include best management practices (BMPs) to ensure that the Project would not result in discharge of toxins, chemicals, petroleum products, and exotic plant materials from the Project and construction site onto the surrounding undeveloped areas. Routine inspection of all BMPs is required under the provisions of the Construction General Permit, and the SWPPP must be prepared and implemented by qualified individuals as defined by the State Water Resources Control Board.

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 (see PDF-CON-5 and PDF-OP-7 described in Chapter 3, Project Description), which limit the amount of fugitive dust generated 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. Additionally, per MM BIO-8, invasive, non-native plant species listed on the California Invasive Plant Council's Inventory of Invasive Plants shall not be incorporated in the landscape plans for the Project for areas within 100 feet of undeveloped areas. Compliance with MM BIO-8 would help prevent non-native plants from colonizing adjacent areas, thus minimizing fuel build up that can increase fire risk. The construction crew would be responsible for unauthorized impacts from construction activities to non-listed special-status plant species, western Joshua trees, and desert native plants that are outside the permitted Project footprint.

Long-Term Operational Impacts

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

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, California Code of Regulations [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 western Joshua trees 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 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 Apple Valley Municipal Code, long-term indirect impacts to non-listed special status plant species, western Joshua trees, and desert native plants would not be 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 (Mitigation for Indirect Impacts), PDF-CON-5 and PDF-OP-7 (described in Chapter 3, Project Description), and adherence to Town and state requirements would reduce potential indirect (short-term and long-term) 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 potential to occur within the Project site (burrowing owl, Mojave desert tortoise, Le Conte's thrasher, Bendire's thrasher, loggerhead shrike, American badger) and one special status-species that was observed within the Project site: desert kit fox.[4] Focused surveys conducted for Mohave ground squirrel and Crotch's bumble bee were negative; therefore, these species are not expected to occur and will not be analyzed further. The remaining species are detailed in the following discussion.

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

Burrowing Owl

Focused surveys completed by GLA on March 13, April 18, May 9, and June 19, 2023, at the Cordova Complex site and March 17, April 20, May 11, and June 21, 2023, at the Quarry at Pawnee site were negative; however, the Project site contains suitable habitat and suitable burrows to support this species. Burrowing owl is a transient species and could potentially occupy the Project site prior to construction. Therefore, potential direct and indirect impacts to burrowing owl would be significant absent mitigation.

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-9 (Pre-Construction Burrowing Owl Survey), 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 and Protection Plan will be prepared to facilitate the implementation of this mitigation measure.

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 owls be located during the pre-construction survey, the Project would result in the loss of 198.4 acres of suitable habitat for burrowing owl, including impacts to 189.8 acres of creosote bush scrub and 8.6 acres of disturbed habitat. These direct permanent impacts would be significant absent mitigation. As required by MM BIO-9 (Pre-Construction Burrowing Owl Survey), mitigation for direct impacts to 198.4 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.

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), and MM BIO-9 (Pre-Construction Burrowing Owl Survey) would reduce potential direct impacts to burrowing owl to less than significant.

Mojave Desert Tortoise

Protocol surveys completed by GLA on March 13 and 14, 2023, resulted in no observations of active desert tortoise burrows, active desert tortoise sign (e.g., scat, drink basins, footprints), or individual desert tortoises. Therefore, implementation of the proposed Project is not expected impact this species. However, the Project site contains suitable sandy soils, ephemeral washes, and creosote scrub to support this species. Additionally, the Project site is

[4] Although this species does not have any federal or state designation, Section 4000 of the California Fish and Game Code defines "kit fox" as a fur-bearing animal, and it is therefore considered "special-status" for purposes of this report.

located within a high probability predicted habitat for the species (CDFW 2023c). Therefore, based on the discussion above, and because desert tortoise is a mobile species that could enter the Project site 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.

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-Disturbance Desert Tortoise Clearance Survey) a pre-construction clearance survey for Mojave desert tortoise 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 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-Disturbance Desert Tortoise Clearance Survey). 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 less than significant.

Should Mojave desert tortoise be located during the clearance survey, the Project would result in the permanent loss of 198.4 acres of suitable habitat for Mojave desert tortoise, including impacts to 189.8 acres of creosote bush scrub and 8.6 acres of disturbed habitat. These direct impacts would be significant absent mitigation. Per MM BIO-5 (Pre-Disturbance Desert Tortoise Clearance Survey), compensatory habitat mitigation 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.

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), and MM BIO-10 (Pre-Disturbance Desert Tortoise Clearance Survey) would reduce potential direct impacts to Mojave desert tortoise to less than significant.

Bendire's Thrasher, LeConte's Thrasher, and Loggerhead Shrike

Loggerhead shrike, LeConte's thrasher, and Bendire's thrasher were not observed during any of the survey efforts conducted by GLA in 2022 and 2023; however, these species have a potential to occur within the Project site due to suitable nesting habitat present and could occupy the Project site prior to construction. Potential direct impacts to these species would be significant absent mitigation. The Project would result in the permanent loss of 189.8 acres of suitable habitat for these species (i.e., impacts to creosote bush scrub). However, due to the surrounding vacant lands available with comparable suitable habitat, the loss of 189.8 acres of suitable habitat would be considered less than significant.

To avoid potential impacts to nesting loggerhead shrike, LeConte's thrasher, or Bendire'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-11 (Pre-Construction Nesting Bird Survey).

Implementation of MM BIO-11 (Pre-Construction Nesting Bird Survey) would reduce potential direct impacts to loggerhead shrike, LeConte's thrasher, or Bendire's thrasher to less than significant. Although the loss of suitable habitat would be considered less than significant, implementation of MM BIO-1 (Conservation of Western Joshua Tree Lands) would require payment of fees intended to facilitate the acquisition and preservation of western Joshua tree habitat, which is suitable habitat further reducing impacts to suitable habitat.

American Badger and Desert Kit Fox

Desert kit fox was observed within the Project site through camera trapping as part of the Mohave ground squirrel focused surveys conducted by DEC. American badger was not observed during any of the survey efforts conducted in 2022 and 2023; however, the Project site contains suitable habitat for American badger and therefore this species could occur within the Project site prior to construction. Potential direct impacts to these species would be significant absent mitigation.

The Project would result in the permanent loss of 198.4 acres of suitable habitat for American badger and desert kit fox, including impacts to 189.8 acres of creosote bush scrub and 8.6 acres of disturbed habitat. However, due to the surrounding vacant lands available with comparable suitable habitat, the loss of 198.4 acres of suitable habitat for these species would be considered less than significant.

To avoid potential direct impacts to American badger and desert kit fox, a pre-disturbance clearance survey would be conducted within seven days prior to the start of ground-disturbing activities to determine the presence/absence of these species, as outlined in MM BIO-12 (Pre-Disturbance American Badger and Desert Kit Fox Clearance Survey). If American badger and/or desert kit fox are not detected during the pre-disturbance clearance survey, then no additional action is required. If the American badger and/or desert kit fox are detected on site in an active den, MM BIO-12 requires the Project Applicant to contact CDFW prior to conducting any Project-associated ground-disturbing activities and create a relocation plan to avoid/minimize impacts to these species. An avoidance buffer of 300 feet would be implemented around the active den until the den is determined to be inactive.

With the incorporation of mitigation, direct impacts associated with American badger and desert kit fox would be less than significant. 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 less than significant.

In summary, implementation of MM BIO-3 through MM BIO-6 and MM BIO-12 (Pre-Disturbance American Badger and Desert Kit Fox Clearance Survey) would reduce potential direct impacts to American badger and desert kit fox to less than significant. Although the loss of suitable habitat would be considered less than significant, implementation of MM BIO-1 (Conservation of Western Joshua Tree Lands) would require payment of fees intended to facilitate the acquisition and preservation of western Joshua tree habitat, which is suitable habitat to further reduce impacts to the loss of this habitat.

Nesting Migratory Birds

The Project site contains trees, shrubs, and bare ground that provides opportunities for avian species to nest on site. Native nesting bird species with potential to occur within the Project site are protected by California Fish and Game Code Sections 3503 and 3503.5 and by the federal MBTA (16 U.S.C. 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; 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 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 within seven days prior to any site disturbance. This requirement is outlined in MM BIO-11 (Pre-Construction Nesting Bird Survey). With the incorporation of mitigation, impacts associated with nesting birds would be less than significant.

In summary, implementation of MM BIO-11 (Pre-Construction Nesting Bird Survey) would reduce potential direct impacts to nesting migratory birds 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; 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 the following seven special-status wildlife species: American badger, Bendire's thrasher, burrowing owl, desert kit fox, LeConte's thrasher, loggerhead shrike, and Mojave desert tortoise. These species are further discussed below.

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; increased human presence; chemical spills; nighttime lighting; trash and debris; and vehicle collisions. These potential short-term or temporary indirect impacts to burrowing owls are considered significant absent mitigation.

MM BIO-9 (Pre-Construction Burrowing Owl Survey), 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 Worker Environmental Awareness Program (WEAP) training and would require ongoing biological monitoring and compliance with all biological resource requirements.

The SWPPP developed for the Project in compliance with the NPDES Construction General Permit would ensure proper management of runoff and water quality during construction. The SWPPP would ensure that there would be no discharge of toxins, chemicals, or petroleum products, onto the surrounding undeveloped areas.

Section 9.47.090 of the Town's Municipal Code and Chapter III of the NAVISP require any exterior nighttime lighting to be shielded and directed onto the Project site and away from adjacent properties such that Project lights would not illuminate adjacent undeveloped areas. Additionally, MM BIO-8 would require trash and debris to be removed regularly and would require animal-resistant trash receptacles to avoid attracting urban-related predator species. 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. Noise and vibration disturbance during construction would be addressed through implementation of PDF-CON-3 (Construction Equipment Idling Restrictions), described in Chapter 3, Project Description.

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-8 (Mitigation for Indirect Impacts) requires that invasive, non-native plant species listed on the California Invasive Plant Council's Inventory of Invasive Plants shall not be incorporated in the landscape plans for the Project for areas within 100 feet of undeveloped areas. Additionally, in accordance with Section 9.47.090 of the Town's Municipal Code and Chapter III of the NAVISP, all exterior lights would be shielded and directed onto the Project site and away from adjacent properties, such that Project lights would not illuminate adjacent undeveloped areas. In addition, as part of the final engineering and site plan check phase, a photometric plan would be prepared by Town planning staff prior to finalization of site plans. Through this process, Town staff would ensure that Project lighting would not result in light trespass on adjacent properties.

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-9 (Pre-Construction Burrowing Owl Survey), MM BIO-8 (Mitigation for Indirect Impacts), PDF-CON-3 (Construction Equipment Idling Restrictions), and compliance with Mojave Desert Air Quality Management District's Rules would reduce potential indirect (short-term and long-term) impacts to burrowing owl to less than significant.

Mojave Desert Tortoise

Short-Term Construction Impacts

Although protocol 2023 desert tortoise surveys conducted by GLA were negative and Mojave desert tortoise is not expected to occur on site, the Project site does provide suitable habitat for this species. 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 short-term impacts could include dust; chemical spills; noise and vibration; increased human presence; nighttime lighting; trash and debris; and vehicle collisions. These potential short-term or temporary indirect impacts to the species are considered significant absent mitigation.

MM BIO-10 (Pre-Disturbance Desert Tortoise Clearance Survey) requires a qualified biologist to conduct pre-disturbance desert tortoise clearance survey within three days of site ground-disturbing activities (e.g., disking, vegetation clearing, clearing and grubbing, equipment staging, etc.) 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 WEAP training and would require ongoing biological monitoring and compliance with all biological resource mitigation requirements.

The SWPPP developed for the Project in compliance with the NPDES Construction General Permit would ensure proper management of runoff and water quality during construction. The SWPPP would ensure there would be no discharge of toxins, chemicals, or petroleum products, onto the surrounding undeveloped areas. Section 9.47.090 of the Town's Municipal Code and Chapter III of the NAVISP requires exterior nighttime lighting to be directed onto the Project site and away from adjacent properties and down-shielded such that Project lights would not illuminate adjacent undeveloped areas. Additionally, MM BIO-8 would require trash and debris to be removed regularly and would require animal-resistant trash receptacles to avoid attracting urban-related predator species. 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. Noise and vibration disturbance during construction would be addressed through implementation of PDF-CON-3 (Construction Equipment Idling Restrictions), described in Chapter 3, Project Description.

Long-Term Operational Impacts

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-8 (Mitigation for Indirect Impacts) requires that invasive, non-native plant species listed on the California Invasive Plant Council's Inventory of Invasive Plants shall not be incorporated in the landscape plans for the Project for areas within 100 feet of undeveloped areas.

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-8 (Mitigation for Indirect Impacts), MM BIO-10 (Pre-Disturbance Desert Tortoise Clearance Survey), PDF-CON-3 (Construction Equipment Idling Restrictions), and compliance with Mojave Desert Air Quality Management District's Rules would reduce potential indirect (short-term and long-term) impacts to desert tortoise to less than significant.

Bendire's Thrasher, LeConte's Thrasher, and Loggerhead Shrike

Short-Term Construction Impacts

The Project site supports suitable foraging habitat (desert scrub) and nesting habitat (spiny shrubs and cactus) for Bendire's thrasher, LeConte's thrasher, and loggerhead shrike; therefore, construction (short-term) activities have the potential to result in indirect impacts to these species and their habitat. Those potential short-term or temporary indirect impacts could include dust; noise and vibration; increased human presence; chemical spills; nighttime lighting; and vehicle collisions. These potential short-term or temporary indirect impacts to Bendire's thrasher, LeConte's thrasher, and loggerhead shrike would be significant absent mitigation.

MM BIO-11 (Pre-Construction Nesting Bird Survey) would require nesting bird surveys and would result in establishment of construction buffers around nests, thus limiting effects from most 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. The SWPPP developed for the

Project in compliance with the NPDES Construction General Permit would ensure proper management of runoff and water quality during construction. The SWPPP would ensure there would be no discharge of toxins, chemicals, or petroleum products, onto the surrounding undeveloped areas. As previously discussed, Section 9.47.090 of the Town's Municipal Code and Chapter III of the NAVISP, requires exterior nighttime lighting to be directed onto the Project site and away from adjacent properties and down-shielded such that Project lights would not illuminate adjacent undeveloped areas. Additionally, MM BIO-8 would require trash and debris to be removed regularly and would require animal-resistant trash receptacles to avoid attracting urban-related predator species. 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. Noise and vibration disturbance during construction would be addressed through implementation of PDF-CON-3 (Construction Equipment Idling Restrictions), described in Chapter 3, Project Description.

Long-Term Operational Impacts

Potential long-term indirect impacts that could result from development within or adjacent to Bendire's thrasher, LeConte's thrasher, and loggerhead shrike habitat include nighttime lighting and increased invasive plant species that may degrade habitat. MM BIO-8 (Mitigation for Indirect Impacts) requires that invasive, non-native plant species listed on the California Invasive Plant Council's Inventory of Invasive Plants shall not be incorporated in the landscape plans for the Project for areas within 100 feet of undeveloped areas. Additionally, as previously discussed, Section 9.47.090 of the Town's Municipal Code and Chapter III of the NAVISP require that night lighting be directed onto the Project site and away from adjacent properties and down-shielded such that exterior Project lights would not illuminate adjacent undeveloped areas. In addition, as part of the final engineering and site plan check phase, a photometric plan would be prepared by Town planning staff prior to finalization of site plans. Through this process, Town staff would ensure that Project lighting would not result in light trespass on adjacent properties.

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-11 (Pre-Construction Nesting Bird Survey), PDF-CON-3 (Construction Equipment Idling Restrictions), and compliance with Mojave Desert Air Quality Management District's Rules would reduce potential indirect (short-term and long-term) impacts to Bendire's thrasher, LeConte's thrasher, and loggerhead shrike to less than significant.

American Badger and Desert Kit Fox

Short-Term Construction Impacts

Desert kit fox was observed within the Project site during 2023 camera trapping as part of the Mohave ground squirrel focused surveys. American badger was not observed during any of the survey efforts conducted in 2022 and 2023; however, the Project site contains suitable habitat for American badger and therefore this species could occur within the Project site prior to construction. Therefore, a pre-construction protocol clearance survey is needed to confirm desert kit fox and American badger absence prior to construction. Should either of these species occur on site, construction activities have the potential to result in significant indirect impacts to desert kit fox and American badger and their habitat. Those short-term impacts could include dust; chemical spills; noise and vibration; increased human presence; nighttime lighting; trash and debris; and vehicle collisions. These potential indirect impacts to the desert kit fox and American badger are considered significant absent mitigation.

MM BIO-12 (Pre-Disturbance American Badger and Desert Kit Fox Clearance Survey) requires a qualified biologist to conduct pre-disturbance clearance survey for American badger and desert kit fox within seven days of site ground-disturbing activities (e.g., disking, vegetation clearing, clearing and grubbing, equipment staging, etc.) 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 WEAP training and would require ongoing biological monitoring and compliance with all biological resource mitigation requirements.

The SWPPP developed for the Project in compliance with the NPDES Construction General Permit would ensure proper management of runoff and water quality during construction. The SWPPP would ensure that there would be no discharge of toxins, chemicals, or petroleum products, onto the surrounding undeveloped areas. Section 9.47.090 of the Town's Municipal Code and Chapter III of the NAVISP require exterior nighttime lighting to be directed onto the Project site and away from adjacent properties and down-shielded such that Project lights would not illuminate adjacent undeveloped areas. Additionally, MM BIO-8 would require trash and debris to be removed regularly and would require animal-resistant trash receptacles to avoid attracting urban-related predator species. 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. Noise and vibration disturbance during construction would be addressed through implementation of PDF-CON-3 (Construction Equipment Idling Restrictions), described in Chapter 3, Project Description.

Long-Term Operational Impacts

Potential long-term indirect impacts that could result from development within or adjacent to desert kit fox and American badger habitat include nighttime lighting and an increase in invasive plant species that may degrade habitat. MM BIO-8 (Mitigation for Indirect Impacts) requires that invasive, non-native plant species listed on the California Invasive Plant Council's Inventory of Invasive Plants shall not be incorporated in the landscape plans for the Project for areas within 100 feet of undeveloped areas. Additionally, as previously discussed, Section 9.47.090 of the Town's Municipal Code and Chapter III of the NAVISP require that exterior night lighting be directed onto the Project site and away from adjacent properties and down-shielded such that Project lights would not illuminate adjacent undeveloped areas. In addition, as part of the final engineering and site plan check phase, a photometric plan would be prepared by Town planning staff prior to finalization of site plans. Through this process, Town staff would ensure that Project lighting would not result in light trespass on adjacent properties.

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-8 (Mitigation for Indirect Impacts), MM BIO-12 (Pre-Disturbance American Badger and Desert Kit Fox Clearance Survey), PDF-CON-3 (Construction Equipment Idling Restrictions), and compliance with Mojave Desert Air Quality Management District's Rules would reduce potential impacts to desert kit fox and American badger to less than significant.

Nesting Migratory Birds

Short-Term Construction Impacts

Construction activities and facility operation could have the potential to result in indirect impacts to nesting migratory birds 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 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-11) shall be conducted by a qualified biologist prior to vegetation removal. 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. In accordance with Section 9.47.090 of the Town's Municipal Code and Chapter III of the NAVISP, all exterior lights would be shielded and directed onto the Project site and away from adjacent properties; therefore, Project lights would not illuminate adjacent undeveloped areas and impacts from nighttime lighting would be less than significant. 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. Noise and vibration disturbance during construction would be addressed through implementation of PDF-CON-3 (Construction Equipment Idling Restrictions), described in Chapter 3, Project Description.

Long-Term Operational Impacts

Post-construction (long-term) activities have the potential to result in indirect impacts to migratory birds 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 are considered significant absent mitigation.

Section 9.47.090 of the Town's Municipal Code and Chapter III of the NAVISP require that exterior night lighting be directed onto the Project site and away from adjacent properties and down-shielded such that Project lights would not illuminate adjacent undeveloped areas. In addition, as part of the final engineering and site plan check phase, a photometric plan would be prepared by Town planning staff prior to finalization of site plans. Through this process, Town staff would ensure that Project lighting would not result in light trespass on adjacent properties.

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-8 (Mitigation for Indirect Impacts), MM BIO-11 (Pre-Construction Nesting Bird Survey), and PDF-CON-3 (Construction Equipment Idling Restrictions), would reduce potential indirect (short-term and long-term) impacts to nesting migratory birds 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?

Less-than-Significant Impact with Mitigation Incorporated. As discussed further as follows, the Project would have no direct impacts on sensitive vegetation communities because none occur within the Project site; however, the Project would have potentially significant indirect impacts on sensitive vegetation communities which would be reduced to a less-than-significant level with incorporated of mitigation measures.

Direct Impacts

A total of 198.4 acres would be directly impacted from the Project, including 162.1 acres of permanent impacts within the Project site and 36.3 acres of permanent impacts within the off-site improvement areas (Figure 4.3-4). As stated in Appendix D, Section 3.2.2, Special-Status Plants, Wildlife and Vegetation Communities Evaluated Under CEQA, 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; therefore, direct impacts to sensitive vegetation communities are not anticipated to occur, and no additional measures are recommended. No direct impacts would occur.

Indirect Impacts

Short-Term Construction Impacts

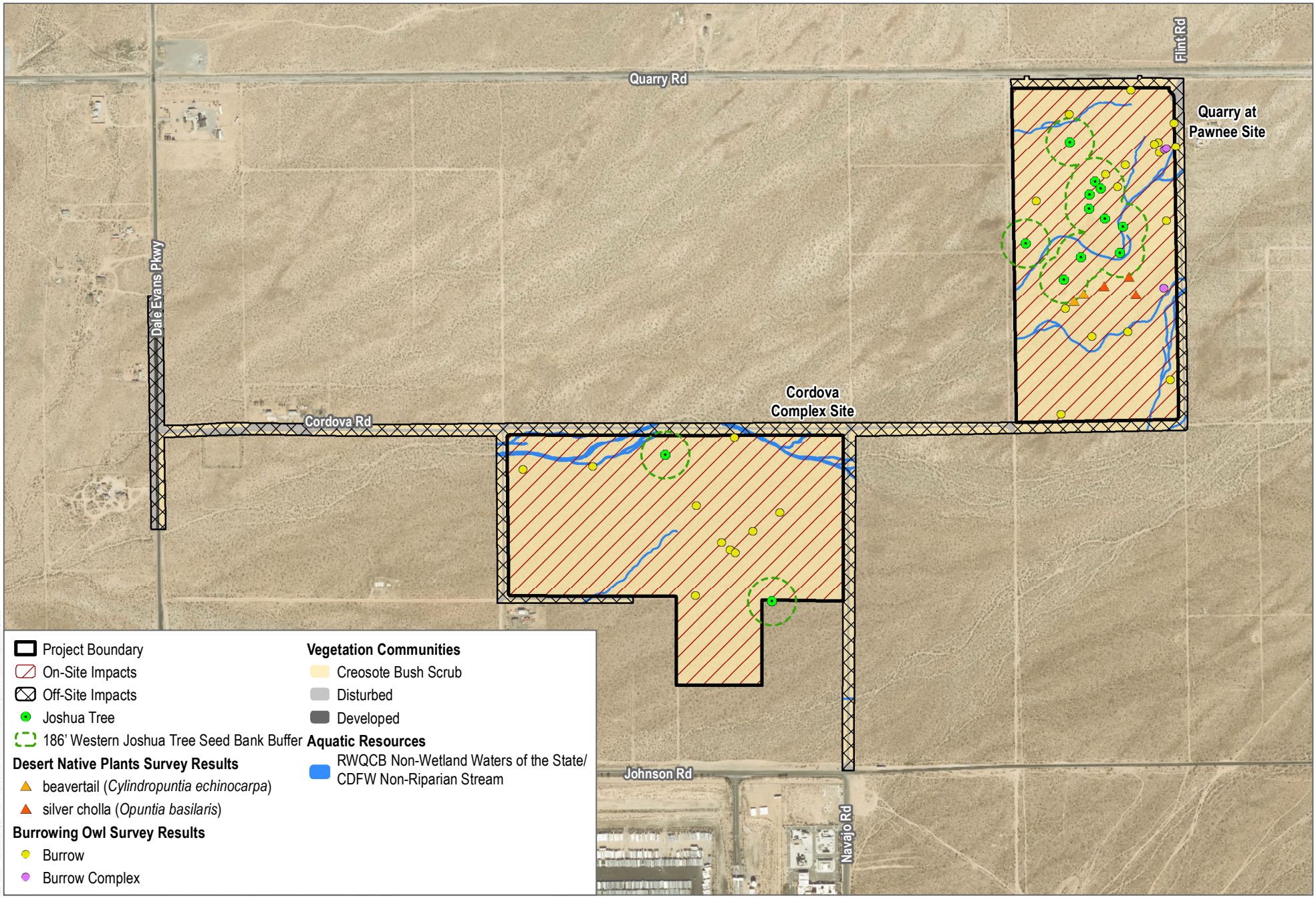
No sensitive vegetation communities occur within the Project site, as stated above in Section 4.3.1, Existing Conditions, and Table 4.3-1. Therefore, implementation of the Project would not result in any indirect impacts to sensitive vegetation communities.

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. 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.

Additionally, the SWPPP developed for the Project in compliance with the NPDES Construction General Permit would ensure proper management of runoff and water quality during construction. The SWPPP would ensure there would be no discharge of toxins, chemicals, or petroleum products, onto the surrounding undeveloped areas. Additionally, non-native plant species listed on the California Invasive Plant Council's Inventory of Invasive Plants shall not be incorporated in the landscape plans for the Project within 100 feet of adjacent undeveloped areas.

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.

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 be less than significant.



SOURCE: GLA 2024; County of San Bernardino; Open Street Map; ESRI World Imagery

DUDEK

0 500 1,000 Feet

FIGURE 4.3-4

Impacts to Biological Resources

Cordova Complex and Quarry at Pawnee Warehouse Project

Long-Term Operational Impacts

Potential long-term (post-construction) indirect impacts from operation and maintenance activities may include 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.

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, California Code of Regulations [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, indirect impacts due to changes in water quality to possible adjacent sensitive vegetation communities would be avoided and minimized through the implementation of low-impact-development features and BMPs.

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, construction impacts involving wildland fires would not be significant.

Upon completion of Project construction, with adherence to the 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 Apple Valley Municipal Code, indirect impacts to sensitive vegetation communities that could potentially occur adjacent to the impact footprint 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), low-impact-development features and BMPs, and compliance with Town and state regulations would reduce potential indirect (short-term and long-term) impacts 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 Project site supports 1.63 acres (0.93 acres on the Cordova Complex site and 0.70 acres on the Quarry at Pawnee site) of non-wetland waters of the state consisting of ephemeral drainages regulated under RWQCB jurisdiction. The Project site supports a total of

1.63 acres (0.93 acres on the Cordova Complex site and 0.70 acres on the Quarry at Pawnee site) of streambed jurisdictional under CDFW (Appendix E of Appendix D).

Direct Impacts

The Project would result in direct impacts to 1.63 acres of potential non-wetland waters of the state under RWQCB jurisdiction (0.93 acres on the Cordova Complex site and 0.70 acres on the Quarry at Pawnee site), and 1.63 acres of streambed under CDFW jurisdiction (0.63 acres on the Cordova Complex site and 0.70 acres on the Quarry at Pawnee site. See Figure 4.3-4 for impacts to jurisdictional aquatic resources. The ephemeral drainages present are not likely subject to USACE jurisdiction because these features are isolated and do not exhibit a continuous and relatively permanent surface connection to 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.

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-13 (Jurisdictional Waters) 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 streambeds under the jurisdiction of 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 Property 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. In addition, per NPDES Construction General Permit requirements, 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. To reduce fugitive dust resulting from Project construction and to minimize adverse air and water 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), and MM BIO-13 (Jurisdictional Waters), and adherence to Mojave Desert Air Quality Management District's Rules 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 may include inadvertent spillover impacts outside of the construction footprint, chemical spills, and stormwater erosion and sedimentation. These potential indirect impacts to jurisdictional aquatic resources are considered significant absent mitigation.

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 Property 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.

In accordance with requirements of the NPDES Construction General Permit, 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. Adherence to Mojave Desert Air Quality Management District's Rules 401 and 403.2, which limit the amount of fugitive dust generated during construction, would minimize adverse air and water quality impacts.

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.

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.

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 adherence to Mojave Desert Air Quality Management District's Rules and CALGreen Standards Code would reduce potential indirect (long-term and short-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 Project site is not located within an essential connectivity area, natural landscape block, or linkage for the California Desert Linkage Network. The closest linkage from the California Desert Linkage Network is approximately 1.6 miles north of the Cordova Complex site and 1.4 miles north of the Quarry at Pawnee site and 4.6 miles west of Cordova Complex site and 4.7 miles west of the Quarry at Pawnee site. Additionally, the Project site is mapped as an Area of Conservation Emphasis, Rank 1, which means "Limited connectivity opportunity" (CDFW 2023e), and no further actions are 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 6.8 miles southwest of the Project site, would not be impacted by the Project. Further, the Project site does not contain nursery sites, such as bird rookeries and heronries or bat maternity roosts. Therefore, impacts associated with wildlife movement, wildlife corridors, and wildlife nursery sites would be less than significant.

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 Project site 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. Therefore, implementation of the Project would not result in significant short-term indirect impacts to wildlife corridors or migratory routes.

Long-Term Operational Impacts

As discussed above, the Project would comply with the requirements of Section 9.47.090 of the Town's Municipal Code and Chapter III of the NAVISP, which require that all exterior lights be shielded and directed onto the Project site and away from adjacent properties. In addition, as part of the final engineering and site plan check phase, a photometric plan would be prepared by Town planning staff prior to finalization of site plans. Through this process, Town staff would ensure that Project lighting would not result in light trespass on adjacent properties. As described in Section 4.1, Aesthetics, all light fixtures would be required to be consistent with the CALGreen Code requirements for illumination, which are designed to minimize light pollution in an effort to maintain dark skies and ensure new development reduces backlight, up light, and glare (BUG) from exterior light sources (CALGreen 2022). The Project would be required to comply with the CALGreen BUG rating for Lighting Zone 3. Furthermore, the Project site is not located within an essential connectivity area, natural landscape block, or linkage for the California Desert Linkage Network. Given that the Project would comply with the above regulatory requirements and development standards related to lighting, Project lighting would not disrupt wildlife movement around the Project site. Therefore, potential

long-term (post-construction) indirect impacts on wildlife movement resulting from operations and maintenance activities due to increased lighting from buildings would be less than significant.

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 14 western Joshua trees (2 trees on the Cordova Complex site and 12 trees on the Quarry at Pawnee site). In addition to western Joshua tree, two desert native plant species were recorded within the Project site during the focused desert native plant survey: beavertail and silver cholla. Specifically, two beavertail and three silver cholla were observed within the Quarry at Pawnee site and would be directly impacted by the Project (Figure 4.3-4).

Therefore, because the focused desert native plant survey was positive for western Joshua tree, beavertail, and silver cholla, 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 would be addressed in a Joshua Tree Preservation, Protection, and Relocation Plan, and Desert Native Plant Relocation Plan that would be 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 (Conservation of Desert Native Plants), the Project Applicant shall submit an application and applicable fee paid to the Town for removal or relocation of protected native desert plants under Apple Valley Municipal Code Chapter 9.76. The land use application and/or development permit approved by the Project, which would constitute the removal permit for the silver cholla and beavertail, may include permit conditions such as salvaging or incorporating the plant into the landscape plan of the Project. The Project would comply with final conditions of the land use application and/or development permit when it is approved by the Town. The application will include certification from a qualified 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 Apple Valley Municipal Code. The application will include the Joshua Tree Preservation, Protection, and Relocation Plan, and Desert Native Plant Relocation Plan that would be prepared by a qualified 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 Project site's western Joshua trees, 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 Apple Valley Municipal Code, impacts associated with western Joshua tree and desert native plants would be less than significant.

The Project could result in potentially 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 Trees) and MM BIO-2 (Conservation 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 site is located within the California Desert Conservation Area Plan (BLM 1980). The Project site 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 issued a Record of Decision for the West Mojave Plan in 2006, although the West Mojave Plan has not been formally adopted. The Project would 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.

In addition, the Project site occurs within the Town's Multiple-Species Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP), which is in the early stages of development, and no draft NCCP/HCP document is 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 as it relates to the NCCP/HCP. Based on discussions Dudek has had with Town staff 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 for biological resources as outlined under CEQA. Some specific items to note include: (1) all reports documenting the presence of listed species would be required to be forwarded to responsible agencies; (2) projects that propose to restore, enhance, or create habitats, would 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 Project's biological technical report would be reviewed to ensure consistency with the NCCP/HCP.

Threshold G: Would the Project result in cumulatively considerable impacts to biological resources?

Less-than-Significant Impact with Mitigation Incorporated. The geographic scope of the cumulative impacts analysis for biological resources is the Town of Apple Valley and the northeast portion of the city of Victorville, in San Bernardino County. The Project, in combination with past, present, and reasonably foreseeable future development, could result in significant cumulative impacts on western Joshua trees, special-status wildlife resources and jurisdictional waters of the U.S. The Project, in combination with past, present, and reasonably foreseeable future development would not result in a significant cumulative 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.

Additional reasonably foreseeable projects within the geographic scope of cumulative impacts include Apple Valley 143; Redwood Industrial; Apple Valley I-15; Inland Empire Logistics Center; 1M Warehouse; Green Trucking Solutions Cold Storage; and four additional unnamed projects within Apple Valley. When considered with other projects in the geographic region, the Project's contribution to the loss of these biological resources would be considerable resulting in a significant cumulative contribution. However, projects under jurisdiction of the Town would be subject to the same requirements to avoid and reduce impacts to biological resources.

Additionally, all projects listed above would be subject to mitigation for impacts to western Joshua tree, including payment of mitigation fees through the WJTCA. The WJTCA collects mitigation fees for the acquisition and conservation of western Joshua tree habitat and other actions to conserve western Joshua trees. This would help offset the impacts of permitted projects that negatively impact western Joshua trees and help to conserve the species on a landscape scale (CDFW 2024). Therefore, as required by MM BIO-1 (Conservation of Western Joshua Trees), mitigation for direct impacts to Joshua trees that would be removed to accommodate the project would be fulfilled through a payment of the fees as described in Section 1927.3 of The Western Joshua Tree Conservation Act. Additionally, western Joshua trees and other desert native plants are locally protected by the Town and by the CDNPA. Therefore, as required by MM BIO-2 (Conservation of Desert Native Plants) and in accordance with the 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 would be prepared.

Potential impacts to special-status wildlife species, such as Mojave desert tortoise, burrowing owl, loggerhead shrike, LeConte's thrasher, Bendire's thrasher, American badger, desert kit fox, and nesting birds would be reduced through implementation of MM BIO-3 through MM BIO-12. Potential impacts to jurisdictional waters of the U.S. and state, if necessary, would be reduced 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 (Mitigation for Indirect Impacts), MM BIO-13 (Jurisdictional Waters), and adherence to Mojave Desert Air Quality Management District's Rules and CALGreen Standards Code. The Project's contribution to the significant cumulative impact to these biological resources would not be considerable resulting in a less-than-significant cumulative impact.

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 the California Endangered Species Act (CESA), western Joshua tree, was observed and would be directly impacted by the Project. While no western Joshua trees were observed within the 50-foot western Joshua tree survey buffer, it is possible that western Joshua trees that may occur outside of the 50-foot buffer and could be indirectly impacted by Project construction. Additionally, seven wildlife species were determined to have a potential to occur within the Project site and could occur during construction of the Project: burrowing owl, desert tortoise, Le Conte's thrasher, Bendire's thrasher, loggerhead shrike, American badger, and desert kit fox. Suitable habitat for these species 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-13 is required to reduce impacts to burrowing owl, desert tortoise, Le Conte's thrasher, Bendire's thrasher, loggerhead shrike, American badger, and desert kit fox to a less-than-significant level.

MM BIO-1: Conservation of Western Joshua Trees. Mitigation for direct impacts to 11 western Joshua trees one meter or greater but less than five meters in height, and 3 trees less than one meter in height shall 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 fee schedule, the Project Applicant shall pay $1,000 for each western Joshua tree five meters or greater in height, and $200 for each western Joshua tree less than five meters in height. Fees collected will be deposited into the Western Joshua Tree Conservation Fund for appropriation to the California Department of Fish and Wildlife.

MM BIO-2: Conservation of Desert Native Plants. Pursuant to Town of Apple Valley Municipal Code Chapter 9.76, prior to the grading permit, the Project Applicant shall submit an application to the Town for removal or relocation of protected native desert plants protected under the Town's 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. In accordance with Section 1927.3 of The Western Joshua Tree Conservation Act obtained for the take of western Joshua tree a designated biologist retained by the Project Applicant or construction contractor shall be on site during all site disturbing activities and shall have authority to immediately stop any activity that does not comply with the biological resource mitigation measures (included in this EIR) and/or to order any reasonable measure to avoid the unauthorized take of an individual western Joshua tree.

MM BIO-4: Compliance Monitoring. During site-disturbing activities a designated biologist retained by the Project Applicant or construction contractor shall be on site daily and 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 these areas remain protected during site disturbing activities (see MM BIO-3). Weekly written observation and inspection records that summarize oversight activities and compliance inspections and monitoring activities required by the Incidental Take Permit, if required, shall be prepared by the designated biologist and provided to the California Department of Fish and Wildlife.

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 any ground disturbing activities. The WEAP shall consist of a presentation from a designated biologist retained by the Project Applicant or construction contractor that includes a discussion of the biology and status of protected or special-status plant and animal species including: western Joshua trees, Mohave desert tortoise, burrowing owls, LeConte's thrasher, Bendire's thrasher, loggerhead shrike, American badger, and desert kit fox. Interpretation for non-English-speaking workers shall be provided, and the same instructions 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 shall be conducting work in the Project area.

MM BIO-6: Construction Monitoring Notebook. The designated biologist (see MM BIO-3) 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 WEAP education program. The Project contractor shall ensure that a copy of the construction monitoring notebook is available for review at the Project site upon request by Town staff, the California Department of Fish and Wildlife, or any agency with jurisdiction.

MM BIO-7: Delineation of Property Boundaries. Prior to commencing ground disturbing activities, the Project contractor shall, in consultation with the designated biologist, clearly delineate the boundaries around the entire Project footprint with fencing, stakes, or flags, consistent with the grading plan. All fencing, stakes, and flags shall be maintained until the completion of site disturbing activities in that area.

MM BIO-8: Mitigation for Indirect Impacts. The following measures shall be required to avoid/minimize potential indirect impacts to biological resources, including aquatic resources and special-status plant and animal species that may occur outside of the Project boundary.

- Invasive, non-native plant species listed on the California Invasive Plant Council's Inventory of Invasive Plants (https://www.cal-ipc.org/plants/inventory/) shall not be incorporated in the landscape plans for the Project for areas within 100 feet of undeveloped areas.
- Fully covered trash receptacles that are animal-proof shall be installed and used by construction personnel 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 trash and construction materials. All construction/contractor personnel shall collect all litter and food waste from the Project site on a daily basis and dispose of such materials in covered trash receptacles. Vehicle fluids and other hazardous waste shall be disposed of in compliance with all applicable federal, state, and local agencies and regulations as described in Section 4.7, Hazards and Hazardous Materials, of this EIR.

MM BIO-9: Pre-Construction Burrowing Owl Survey. A qualified biologist retained by the Project Applicant or construction contractor shall conduct two pre-construction presence/absence surveys for burrowing owls, one no less than 14 days prior to site disturbance, and one within 24 hours of site ground-disturbing activities (e.g., disking, vegetation clearing, clearing and grubbing, equipment staging, etc.) to ensure that no owls have colonized the site in the days or weeks preceding the ground-disturbing activities. Surveys for burrowing owl shall be conducted in accordance with protocols established in the California Department of Fish and Wildlife's (CDFW's) 2012 (or most recent version) Staff Report on Burrowing Owl Mitigation. If burrowing owls are not detected during the pre-construction take avoidance surveys, then no additional action is required.

If burrowing owls are detected, a Burrowing Owl Relocation and Protection Plan shall be prepared and implemented for the Project. The Burrowing Owl Relocation Plan shall require that disturbance to burrows 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 approved by CDFW shall be implemented by a qualified biologist approved to conduct relocation. 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 pre-construction survey, mitigation for direct impacts to 198.4 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 198.4 acres.

MM BIO-10: Pre-Disturbance Desert Tortoise Clearance Survey. A qualified biologist retained by the Project Applicant or construction contractor shall conduct pre-disturbance desert tortoise clearance surveys within three days of site ground-disturbing activities (e.g., disking, vegetation clearing, clearing and grubbing, equipment staging, etc.) in accordance with current U.S. Fish and Wildlife Service (USFWS) protocol to reevaluate locations of potential Mojave desert tortoise burrows within the Project limits so take of Mojave desert tortoise can be avoided. If no Mojave desert tortoises are found during the pre-disturbance desert tortoise clearance survey, then no additional action or mitigation is required.

Should Mojave desert tortoise be located during the clearance survey, USFWS shall be contacted and all work shall cease until further direction from the USFWS is provided. 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 biological opinion 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 biological opinion or 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 biological opinion or Incidental Take Permit.

Should Mojave desert tortoise be located during the clearance survey, the Project would result in the loss of 198.4 acres of suitable habitat for Mojave desert tortoise. Mitigation for direct impacts to 198.4 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 198.4 acres or as otherwise determined through coordination with the USFWS and/or California Department of Fish and Wildlife.

MM BIO-11: Pre-Construction Nesting Bird Survey. If possible, vegetation clearing shall be conducted outside of the nesting season, which is generally identified as February 1 through August 31. If avoidance of the nesting season is not feasible, then a qualified biologist shall conduct a pre-construction nesting bird survey within seven days prior to any disturbance of the site, including disking, vegetation clearing, clearing and grubbing, equipment staging, etc. If active nests are identified during the pre-construction nesting bird survey, the biologist shall establish suitable buffers around the nests, and the buffer areas shall be avoided until the nests are no longer occupied and the juvenile birds can survive independently from the nests. Suitable buffers 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).

MM BIO-12: Pre-Disturbance American Badger and Desert Kit Fox Clearance Survey. A qualified biologist shall conduct pre-disturbance clearance surveys for the American badger and/or desert kit fox within seven days of ground-disturbing activities (e.g., disking, vegetation clearing, clearing and grubbing, equipment staging, etc.). If the American badger and/or desert kit fox are not detected during the pre-disturbance clearance survey, then no additional action or mitigation is required. If the American badger and/or desert kit fox are detected on site in an active den, then the Project Applicant shall be required to contact CDFW prior to conducting any Project-associated ground-

disturbing activities and prepare and implement a relocation plan to avoid/minimize impacts to these species. An avoidance buffer of 300 feet shall be implemented around any active dens until the den is determined to be inactive.

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 (listed above) and adherence to Mojave Desert Air Quality Management District's Rules and CALGreen Standards Code would 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 (listed above), MM BIO-13 and adherence to Mojave Desert Air Quality Management District's Rules and CALGreen Standards Code are required to reduce direct and indirect impacts to a less-than-significant level.

MM BIO-13: Jurisdictional Waters. The Project site supports 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 site disturbing activities, the Project 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 Project 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 minimum 1:1 with purchase of credits (1.63 acres RWQCB jurisdiction and 1.63 acres CDFW 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) or other Applicant-sponsored mitigation (such as restoration, preservation or enhancement of on-site or off-site resources). 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. However, the Project could result in potentially significant long-term indirect impacts from operations and maintenance activities that could disrupt wildlife movement around the Project site due to increased lighting from buildings. However, the Project would comply with the requirements of Section 9.47.090 of the Town's Municipal Code and Chapter III of the NAVISP, which require that all exterior lights be shielded and directed onto the Project site and away from adjacent properties. Additionally, as described in Section 4.1, Aesthetics, all light fixtures would be required to be consistent with the CALGreen Code requirements for illumination, which 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 2022). The Project would be required to comply with the CALGreen BUG rating for Lighting Zone 3. Therefore, with compliance with Town and state requirements, long-term indirect impacts would be less than significant.

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 (listed above under Threshold A) would reduce potential impacts to California desert native plants (western Joshua tree, Wiggins' cholla, branched pencil cholla, and short-joint

beavertail) to less than significant through payment of fees pursuant to the WJTCA and submittal of an application to the Town with a detailed plan for removal or relocation of protected native desert plants, including procedures for transplantation.

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 would not conflict with the conservation criteria associated with the California Desert Conservation Area Plan, the West Mojave Plan, or the Desert Renewable Energy Conservation Plan, as the Project is not located on BLM lands and is not a renewable energy project, or the draft Public Review Planning Agreement document (Town of Apple Valley 2017), as the Project would be reviewed to ensure consistency with the Town's Multiple-Species NCCP/HCP in the event that it is approved at the time of Project implementation. Therefore, the Project would not be in conflict with any adopted habitat conservation plans and would result in less-than-significant impacts to an adopted conservation plan and no mitigation is required.

Threshold G: Would the Project result in cumulatively considerable impacts to biological resources?

The Project could result in a cumulatively considerable contribution to significant cumulative impacts related to native desert plants protected under the CNDPA, western Joshua trees, Mojave desert tortoise, burrowing owl, loggerhead shrike, LeConte's thrasher, Bendire's thrasher, desert kit fox, American badger, and nesting migratory birds. Potentially cumulatively considerable contributions to significant cumulative impacts on jurisdictional resources could also occur, and mitigation would be required. Incorporation of MM BIO-1 through MM BIO-13 (listed above under Threshold A and Threshold C) is required to reduce impacts to less than significant which include measures to mitigate for both direct and indirect impacts, including ensuring payment of WJTCA mitigation fees, conservation of special-status plant species, biological monitoring to ensure compliance with mitigation measures, implementation of a WEAP, protocols for minimizing the spread of invasive plant species and deterring wildlife from entering the construction site, pre-construction surveys for special-status wildlife species, and purchase of credits to mitigate for impacts to aquatic resources.

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4.4 Cultural, Tribal Cultural, and Paleontological Resources

This section describes existing conditions related to cultural, tribal cultural, and paleontological resources, identifies associated regulatory requirements, evaluates potential project and cumulative impacts, and provides mitigation measures for any significant or potentially significant impacts related to implementation of the Cordova Complex and Quarry at Pawnee Warehouse Project (Project).

Comments regarding cultural resources and tribal cultural resources were received during the scoping period for this environmental impact report (EIR) from the Native American Heritage Commission (NAHC). These comments stated that the EIR should determine whether there are historical resources within the Project area of potential effect (APE), summarized information on tribal consultation requirements pursuant to Assembly Bill (AB) 52 and Senate Bill (SB) 18, and provided recommendations for cultural resources assessments. No comments regarding paleontological resources were received. All scoping comment letters received are provided in Appendix A.

This analysis is based, in part, on Cultural Resources Assessments (PaleoWest 2023a, 2023b; see Appendix E), Geotechnical Exploration Reports (Leighton 2023a, 2023b; see Appendix F), and Paleontological Resource Assessments (PaleoWest 2023c, 2023d; see Appendix G) prepared for the Project. In addition, the evaluation of potential impacts to tribal cultural resources is based on the background research conducted to inform this analysis and the results of informal tribal outreach to Native American contacts recommended by the NAHC and formal tribal consultation completed by the Town of Apple Valley (Apple Valley or Town), as the lead agency, pursuant to AB 52.

4.4.1 Existing Conditions

Cultural and Tribal Cultural Resources

The Project involves the development of two warehouses and associated improvements on two noncontiguous sites: the Quarry at Pawnee site and the Cordova Complex site. These two sites collectively represent the Project site. This section summarizes the results of Cultural Resources Assessments prepared for the Project by PaleoWest (see Appendix E), including a California Historical Resources Information System (CHRIS) records search and other background research, NAHC Sacred Lands File (SLF) search and informal tribal outreach, and pedestrian survey of the Project site, as well as formal tribal consultation completed by the Town pursuant to AB 52.

California Historical Resources Information System Records Search

On September 14, 2022, an 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 a review of records relative to any previously recorded cultural resources and investigations within a 0.5-mile radius of the Cordova Complex site and Quarry at Pawnee site. The confidential records search results are provided in confidential appendices to the Cultural Resources Assessments (Appendix E).[1] The results of the CHRIS records search are summarized below.

[1] The confidential records search results which contain sensitive information related to the location of cultural sites are on file with the Town and available for review only by eligible individuals.

Cordova Complex Site

Three cultural resource studies have been conducted within the 0.5-mile records search area between 1979 and 2007 (no other records are on file as having been conducted before and after this time period). Of these studies, one, is mapped as overlapping the Cordova Complex site and addresses the entirety (100%) of the site. No cultural resources were identified within the Cordova Complex site as a result of these previous investigations. One cultural resource has been previously recorded within a 0.5-mile radius of the Cordova Complex site and consists of multiple concentrations of historic-period refuse scatters.

Quarry at Pawnee Site

Two cultural resource studies have been conducted within the 0.5-mile records search area between 1979 and 2007 (no other records are on file as having been conducted before and after this time period). Both of these studies are mapped as overlapping the Quarry at Pawnee site. The entirety (100%) of the Quarry at Pawnee site has been previously subjected to cultural resource studies. One cultural resource was identified within the Quarry at Pawnee site as a result of these previous investigations and is discussed below.

One previously recorded cultural resource, P-36-020981/CA-SBR-13515H, is located within the Quarry at Pawnee site and consists of a historic-period refuse scatter. According to the site record for resource P-36-020981/CA-SBR-13515H, the archaeological site consists of 12 discrete loci of historic period household refuse, including cans, glass jars and miscellaneous glass fragments, and ceramic tableware fragments and was formally documented in 2009. Diagnostic (or dateable) traits for the artifact assemblage provides a date of post-1950. The site is interpreted as episodic refuse dumping. Disturbances to the site include looting activities. None of these resources were collected as part of the formal recordation in 2009. The site does not appear to have been previously evaluated for listing on the California Register of Historical Resources (CRHR). Two other previously recorded cultural resources have been recorded within a 0.5-mile radius of the Quarry at Pawnee site.

Historical Topographic Maps and Aerial Photographs Review

Cordova Complex Site

A review of topographic maps and aerial photographs indicates that the Cordova Complex site has been undeveloped and has remained as such to present day. In the immediate vicinity of the Cordova Complex site, development or changes to the landscape include the Mojave Northern railroad to the north and the Walmart Distribution Center and residences to the southwest. In the general vicinity of this site, numerous mines, prospects, and mining infrastructure are present during the early to mid-twentieth century.

Quarry at Pawnee Site

A review of topographic maps and aerial photographs indicates that the Quarry at Pawnee site has been undeveloped and remained as such to present day. However, in the vicinity of this site, numerous mines, prospects, and mining infrastructure are present during the early to mid-twentieth century.

Geotechnical Report Review

Geotechnical explorations were conducted for the Project site to document subsurface geological conditions and infiltration rates, completed by Leighton Consulting, Inc. on February 1, 2023 (see Appendix F). The geotechnical exploration included hollow-stem auger borings, infiltration tests, laboratory testing, surface geologic mapping,

seismic refraction surveys, and geotechnical analysis. Table 4.4-1 provides a summary of the subsurface investigative results for the Project site. As shown in Table 4.4-1, no fill soils were identified in the geotechnical borings and the results of the geotechnical investigation indicate that native younger and/or older alluvial soils extend within the Project site from surface elevation to maximum depths explored. Cultural deposits typically exist within A soil horizon (topsoil) and B soil horizon (subsoil) of native soils that usually extend to an approximate depth of 6 feet below ground surface in locations not exposed to recent alluvial deposits. However, in areas where environmental conditions include alluvial activity, the depth where cultural material can be found has the potential of being considerably deeper. Natural alluvial features such as intermittent streams are present on the Project site. Consequently, it is possible for intact, buried archaeological deposits, including unique archaeological resources or historical resources of an archaeological nature, to exist within native soils on the Project site. Results of the geotechnical exploration that are relevant to cultural and tribal cultural resources are summarized below.

Table 4.4-1. Summary of Subsurface Investigations for the Project Site

Boring No.	Location of Investigation	Depths of Fill Soils	Depths of Native Soils	Terminated/ Refusal Depth
Cordova Complex Site				
LB-1	Northwestern quadrant of building area	N/A	0-25.66 feet bgs	~25 feet bgs
LB-2	Northwestern quadrant of building area	N/A	0-20.16 feet bgs	~20 feet bgs
LB-3	Northern central portion of building area	N/A	0-20.16 feet bgs	~20 feet bgs
LB-4	Northeastern quadrant of building area	N/A	0-20.25 feet bgs	~20 feet bgs
LB-5	Northeastern quadrant of building area	N/A	0-20.25 feet bgs	~20 feet bgs
LB-6	Southwestern quadrant of building area	N/A	0-30.25 feet bgs	~30 feet bgs
LB-7	Southwestern quadrant of building area	N/A	0-20.25 feet bgs	~20 feet bgs
LB-8	Southern central portion of building area	N/A	0-30.16 feet bgs	~30 feet bgs
LB-9	Southeastern quadrant of building area	N/A	0-20.25 feet bgs	~20 feet bgs
LB-10	Southeastern quadrant of building area	N/A	0-25.25 feet bgs	~25 feet bgs
LI-1	North of fire lane	N/A	0-15.1 feet bgs	~15 feet bgs
LI-2	Detention basin area	N/A	0-15 feet bgs	15 feet bgs
Quarry at Pawnee Site				
LB-1	Southeastern quadrant of building area	N/A	0-20.41 feet bgs	~20 feet bgs
LB-2	Southeastern quadrant of building area	N/A	0-20.33 feet bgs	~20 feet bgs
LB-3	Southern central portion of building area	N/A	0-5.5 feet bgs	~5 feet bgs
LB-3A	Southern central portion of building area	N/A	0-4 feet bgs	4 feet bgs
LB-4	Southwestern quadrant of building area	N/A	0-20.25 feet bgs	~20 feet bgs
LB-5	Southwestern quadrant of building area	N/A	0-25.41 feet bgs	~25 feet bgs
LB-6	Northeastern quadrant of building area	N/A	0-30.25 feet bgs	~30 feet bgs
LB-7	Northeastern quadrant of building area	N/A	0-13 feet bgs	13 feet bgs
LB-8	Northern central portion of building area	N/A	0-50.08 feet bgs	~50 feet bgs
LB-9	Northwestern quadrant of building area	N/A	0-10 feet bgs	10 feet bgs
LB-10	Northwestern quadrant of building area	N/A	0-19 feet bgs	19 feet bgs
LI-1	Northeastern limits of site	N/A	0-11.5 feet bgs	~11 feet bgs
LI-2	Southern fire lane	N/A	0-5 feet bgs	5 feet bgs

Source: Leighton 2023a, 2023b.
Notes: N/A = not applicable; bgs = below ground surface; ~ denotes approximate.

Cordova Complex Site

Based on the results of 10 subsurface exploratory borings (LB-1 through LB-10) and 2 well permeameter (infiltration) tests (LI-1 and LI-2), the Cordova Complex site is underlain by surficial sediments consisting of Quaternary alluvium (Qa), described as sand with silt and silty sand; this alluvium was encountered at all investigated locations. No bedrock was encountered at any of the locations investigated.

Quarry at Pawnee Site

Based on the results of 11 subsurface exploratory borings (LB-1 through LB-10 and LB-3A) and 2 well permeameter (infiltration) tests (LI-1 and LI-2), the Quarry at Pawnee site is underlain by younger Quaternary alluvium (Qa) followed by older Quaternary alluvium (Qoa), described as generally consisting of gravelly sands, silty sand, poorly graded sand, sand with silt, clayey sand, and sandy silt. Additionally, the geotechnical report notes that at the surface, older alluvium (Qoa) appeared to consist of larger clasts (up to cobble-sized) than younger alluvium (Qa) and further noted that several of the borings drilled in older alluvium encountered refusal, which may be an indication that cobbly layers exist. No bedrock was encountered at any of the locations investigated.

Archaeological Survey Methods and Results

Archaeological pedestrian surveys of the Project site were conducted on September 28 (Cordova Complex site), and September 29 and October 24 (Quarry at Pawnee site), 2022, utilizing transects spaced between 10 to 15 meters (approximately 33 to 50 feet) apart. In areas of exposed subsurface soils, surveyors performed an opportunistic survey. Ground surface visibility was excellent (80% to 100%). Disturbances observed included sheet wash and wind erosion, off-roading activities, modern refuse dumping and diffuse refuse scatters, very recently drilled boreholes for geotechnical testing, and dirt two-track roads.

Cordova Complex Site

No previously recorded or newly identified cultural resources were identified/encountered within the Cordova Complex site as a result of the pedestrian survey.

Quarry at Pawnee Site

As a result of the pedestrian survey, one previously recorded historic period refuse scatter, P-36-020981/CA-SBR-13515H, identified within the site through the CHRIS records search, was revisited to determine present site conditions. As part of the survey and based on the in-field assessment, the surveying archaeologist determined that 4 of the 12 loci originally documented in the site record for the resource had been destroyed or could not be found. Based on the evidence, the resource was recommended as ineligible for inclusion in the CRHR and the site record was updated to include observations made in the field and the findings determined by those observations. Therefore, this resource is not considered a historic-era archaeological resource under the California Environmental Quality Act (CEQA).

The pedestrian survey resulted in the identification of four previously unknown/undocumented historic-period refuse scatters labeled with the following temporary identification numbers 22-0512-GS-001, 22-0512-GS-002, 22-0512-GS-003, and 22-0512-GS-004. The cultural materials observed within these scatters generally consist of historic-period cans and glass bottle fragments. All four newly identified historic-period refuse scatters were recommended as ineligible for inclusion in the CRHR and site record forms were created to document the newly identified resources. Therefore, these resources are not considered historic-era archaeological resources under CEQA.

Native American Coordination

Sacred Lands File Search

A search of the NAHC's SLF database was requested on August 11, 2022, to determine the presence of any reported tribal cultural resources within proximity of the Project site. The NAHC SLF records search results were negative.[2] The NAHC identified 20 Native American individuals representing 12 Native American tribal groups who would potentially have specific knowledge as to whether or not tribal cultural resources as defined by CEQA are identified within the study area. PaleoWest sent informal outreach letters to the NAHC-listed contacts on October 19, 2022, and conducted follow-up phone calls on October 31, 2022, to contacts who did not respond to the letter. As a result of the informal outreach, PaleoWest received five responses:

- Nicole A. Raslich, Archaeological Technician for the Agua Caliente Band of Cahuilla Indians' Tribal Historic Preservation Office, responded via email on October 24, 2022, and stated that the Project is not within the Tribe's Traditional Use Area and that the Tribe defers to other tribes in the area.
- The Quechan Tribe of the Fort Yuma Reservation's Historic Preservation Office responded via email on October 21, 2022, and stated that the Tribe does not wish to comment on the Project and defer to more local tribes and support their determinations on the matter.
- Ryan Nordness, Cultural Resource Analyst for the Yuhaaviatam of San Manuel Nation (formerly known as the San Manuel Band of Mission Indians), responded via email on October 20, 2022, and stated that the Project is not located near any known cultural resources.
- Robert Robinson, Chairperson of the Kern Valley Indian Community, stated during a phone conversation on October 31, 2022, that a culturally affiliated Tribal Monitor should be present during ground disturbing activities as indigenous people were inhabiting that area prehistorically when the Mojave River had more water running in it.
- Sarah Bliss, Tribal Programs Coordinator for the Twenty-Nine Palms Band of Mission Indians, stated during a phone conversation on October 31, 2022, that the Project lies just outside of the Tribe's traditional use area and that they defer to more local tribes.

A complete record of the Native American outreach effort is included in Appendix E.

Assembly Bill 52 Consultation

The Project is subject to compliance with AB 52, which requires consideration of impacts to tribal cultural resources 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. AB 52 allows Tribes 30 days after receiving notification to request consultation. If a response is not received within the allotted 30 days, it can be assumed consultation is declined. The Town sent notification letters on September 11, 2023, to the following six California Native American tribal representatives from four tribes that have requested notification and are traditionally or culturally affiliated with the geographic area of the Project site:

[2] The SLF maintained by the NAHC represents 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 provided by Tribal entities and Native American representatives. For various reasons, 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.

- Morongo Band of Mission Indians
  - Ann Brierty, Tribal Historic Preservation Officer
  - Robert Martin, Chairperson
- Twenty-Nine Palms Band of Mission Indians
  - Anthony Madrigal, Tribal Historic Preservation Officer
  - Darrell Mike, Chairperson
- Yuhaaviatam of San Manuel Nation
  - Alexandra McCleary, Ph.D., Senior Manager
- Cabazon Band of Mission Indians
  - Doug Welmas, Tribal Chairman

Two tribes responded to the notification: the Yuhaaviatam of San Manuel Nation and the Morongo Band of Mission Indians. The Yuhaaviatam of San Manuel Nation requested cultural and geotechnical reports for the Project, including Project plans and depths of disturbance. The Town provided the requested documents, and the Yuhaaviatam of San Manuel Nation responded that while the Project area is within Serrano ancestral territory, the Tribe did not have any concerns with Project implementation, requested specific mitigation measures be included as part of the Project permit/plan/conditions (which have been incorporated into the mitigation measures below), and stated that the Yuhaaviatam of San Manuel Nation has no further input on the Project and did not request formal consultation with the Town.

The Morongo Band of Mission Indians stated that the Project site is located within the ancestral territory and traditional use area of the Cahuilla and Serrano people of the Morongo Band of Mission Indians and requested to initiate formal consultation under AB 52, and requested that the Town provide current Project design and grading maps, a CHRIS records search with a 1-mile search radius, tribal monitoring during pedestrian surveys and testing or copies of the Phase I study or other cultural assessments, shapefiles of the Project's area of potential effect (APE), and the geotechnical report. The Town held a virtual meeting with the Morongo Band of Mission Indians on November 17, 2023. Following the meeting, the Morongo Band of Mission Indians requested specific mitigation measures be included as part of the Project permit/plan/conditions (which have been incorporated into the mitigation measures below). The Town agreed to include the mitigation measures in the EIR and concluded consultation with the Morongo Band of Mission Indians. All records of correspondence related to AB 52 notification and any subsequent consultation are on file with the Town.

Paleontological Resources

Paleontological resources are the fossilized remains, traces, and associated data of plants and animals, preserved in the Earth's crust, and are generally considered to be older than middle Holocene (approximately 5,000 years before present) by the Society of Vertebrate Paleontology (SVP) (SVP 2010). Body fossils include bones, teeth, shells, leaves, and wood, while trace fossils include trails, trackways, footprints, and burrows. With the exception of fossils found in low-grade metasedimentary rocks, significant paleontological resources are found in sedimentary rock units that are old enough to preserve the remains or traces of plants and animals. The fossil potential of geological units is assessed based on the likelihood of encountering fossils within the unit. Any surface or subsurface Pleistocene-age (1,808,000 to 11,550 years ago) soils may have a high potential to contain significant nonrenewable paleontological resources, while surficial younger Quaternary alluvium is unlikely to uncover significant fossil remains (Town of Apple Valley 2009). The surficial Holocene alluvial deposits, aged less than 11,700 years ago, have not been shown to produce

any fossil resources and therefore has low paleontological sensitivity on the surface that increases with depth where they can become old enough to preserve significant paleontological resources.

Paleontological resources are limited, nonrenewable resources of scientific and educational value, which are afforded protection under state laws and regulations. For the purposes of this analysis, a "unique paleontological resource" means a paleontological resource 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 one of the following criteria:

- Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information; or
- Has a special and particular quality such as being the oldest of its type or the best available example of its type.

Paleontological Resource Assessments for the Project were prepared by PaleoWest on January 31, 2023. The assessments included a fossil locality records search conducted by the San Bernardino County Museum (SBCM) and a review of existing geologic maps and primary literature regarding fossiliferous geologic units within the Project region. Information in this subsection is sourced from these assessments and references therein, which can be found in Appendix G of this EIR.

The Project area is 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. Locally, the Project area is in a valley basin surrounded by mountains of igneous intrusions. Sediments in the basin area are dominated by alluvial detritus from the surrounding mountains deposited in the Pleistocene and Holocene Epochs.

The Cordova Complex site is predominantly underlain by old alluvial deposits (Qoa), composed of fine- to medium-grained sand and fine- to medium-grained gravel of inactive alluvial fans from the late Pleistocene Epoch (2.6 million years ago [mya] to 11,700 years ago). A small exposure of wash deposits (Qw) of the Holocene Epoch (11,700 years ago to today) is present in the northwest and northeast corners of the Cordova Complex site, composed of unconsolidated fine- to coarse-grained sand and gravel.

The Quarry at Pawnee site is predominantly underlain by very old alluvial deposits (Qvoa) of sand and gravel from the early Pleistocene Epoch (2.6 million years ago [mya] to 11,700 years ago; the oldest Qvoa deposits are possibly from the latest Miocene Epoch [23 mya to 5.3 mya]). Old alluvial deposits (Qoa) are present in the northern and southern portions of the Quarry at Pawnee site, and a small area of wash deposits (Qw) is located in the southeastern corner.

All units are sourced from the Fairview Valley Formation, Sidewinder Volcanic series, and local plutonic intrusions, all of the Mesozoic Era (251–66 mya). Holocene units are typically considered to have a low paleontological sensitivity, as they are too young to have accumulated and preserved significant biologic material, but often transition with depth into high sensitivity Pleistocene deposits. Elsewhere in San Bernardino County, Pleistocene deposits have produced remains of a diverse terrestrial fauna, including ground sloth, deer, mammoth, camel, horse, bison, badger, mole, rabbit, gray fox, coyote, snake, and rodent.

The SBCM records search did not produce any fossil localities from within the Project area, nor within 5 miles. Pleistocene alluvial sediments like those in the Project area are highly fossiliferous in Victorville, Adelanto, and southern Apple Valley, and the nearest fossil locality in Pleistocene deposits produced in the SBCM records search was 8 miles west-southwest of the Project area near George Air Force Base (SBCM 1.114.33B), and produced remains of *Coleonyx variegatus* (Western banded gecko), Mammalia indet., *Lepus* sp. (hare), Rodentia indet., *Thomomys* sp.

(Western pocket gopher), *Perognathus* cf. *longimembris* (little pocket mouse), *Neotoma* cf. *albigula* (white-throated wood rat), and Plantae root traces, all under Holocene deposits at an unspecified depth. Additional searches of online databases and other literature did not produce any additional fossil localities within 3 miles of the Project area.

Based on the literature review and SBCM records search results, and in accordance with the SVP (2010) sensitivity scale, the Quaternary older alluvial deposits (Qoa and Qvoa) mapped in the Project area have high paleontological sensitivity because similar deposits have yielded Pleistocene vertebrate fossils in the vicinity. Wash deposits (Qw) mapped in the Project area are Holocene age at the surface (i.e., low paleontological sensitivity) but may transition into Pleistocene age deposits with depth (i.e., high paleontological sensitivity). Thus, the Project site is underlain by alluvial deposits that range in paleontological sensitivity from low (Holocene-age Qw at the surface) to high (Pleistocene-age Qvoa, Qoa, and at depth in the Qw).

Unique Geologic Features

The basic definition of geologic features includes the detail of the Earth's surface or topography, for example mountains, valleys, canyons, bodies of water, volcanoes, and caves. Geologic features result from the cycling of water, rock, and sediment through geologic processes including plate tectonics, weathering, erosion, deposition, and weather. A geologic feature may be considered unique if it has qualities that make it unusual or distinct, including scenic or scientific value. For the purposes of this analysis, a "unique geologic feature" means a geologic feature that meets one of the following criteria:

- Is the best example of its kind locally or regionally;
- Embodies the distinctive characteristics of a geologic principle that is exclusive locally or regionally;
- Provides a key piece of geologic information important in geology or geologic history;
- Is a "type locality" of a geologic feature (i.e., the place where a geologic feature was first recognized and described);
- Is a geologic formation that is exclusive locally or regionally;
- Contains a mineral that is not known to occur elsewhere in the region; or
- Is used repeatedly as a teaching tool.

No unique geologic features, such as unique erosional features or rock outcrops, have been identified on the Project site by land surveyors, cultural resource teams, and other field staff that have conducted surveys of the Project site.

4.4.2 Regulatory Framework

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 National Register of Historic Places (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 resources, historical resources, and tribal cultural resources:

- 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 tribal cultural resource (PRC Sections 21074[c] and 21083.2[h]), further consideration of significant impacts is required.

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 archaeological resource, CEQA imposes special mitigation requirements. Specifically, "[i]f it can be demonstrated that a project will cause damage to a unique archaeological 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 archaeological sites."
2. "Deeding archaeological sites into permanent conservation easements."
3. "Capping or covering archaeological 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 (PRC Section 21083.2[d]; CEQA Guidelines Section 15126.4[b][3][C]). PRC Section 21083.2(d) states that "[e]xcavation as mitigation shall be restricted to those parts of the unique archaeological resource that would be damaged or destroyed by the project. Excavation as mitigation shall not be required for a unique archaeological 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

Regarding paleontological resources, the 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 (PRC) 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 (CEQA Guidelines Section 15064.5 [a][3][D]). Paleontological resources would fall within this category.

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):

> "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

AB 52 of 2014 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 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 CRHR.
    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]).

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.

Public Resources Code Sections 5097.5 and 30244

Section 5097.5 of the 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.

PRC Section 30244 requires:

> "Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required."

Local

The North Apple Valley Industrial Specific Plan does not include any goals, policies or actions that address cultural resources.

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 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 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 (note: this applies only to those resources already designated as a CEQA historical resource).
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.

Issues Not Further Discussed

As analyzed in the Initial Study (Appendix A), the Project would have a less-than-significant impact on historical resources (under Threshold A) because the Project site does not include any historical resources 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]) 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. Therefore, this issue is not further analyzed in this section. See Appendix A for further details.

4.4.4 Impact Analysis

This section contains an evaluation of the potential environmental impacts associated with the Project related to cultural, tribal cultural, and paleontological resources. The section describes the methods used in conducting the analysis and evaluates the Project-specific impacts and contribution to significant cumulative impacts, if any are identified.

Methodology

Records Search and Native American Coordination

As described above, a CHRIS records search and a NAHC Sacred Lands File search were conducted for the Project site including a 0.5-mile radius in September 2022. The CHRIS search included a review of the NRHP, CRHR, California Inventory of Historic Resources, historical maps, and local inventories. Additionally, Native American tribes and tribal organizations were contacted in response to NAHC recommendations for making contact when the Sacred Lands File search was completed by NAHC, and the Town conducted formal Native American outreach pursuant to AB 52.

Surveys

Pedestrian surveys of the Project site were conducted in September and October 2022. An archaeological reconnaissance was conducted by a qualified archaeologist using standard archaeological procedures and techniques. All field practices met the Secretary of Interior's standards and guidelines for a cultural resources inventory. The land area was surveyed in pedestrian transects with approximately 10- to 15-meter spacing. The survey entailed inspecting all areas likely to contain or exhibit cultural resources and documenting the site with notes and photographs. See Appendix E for further details on survey methods.

Historical Resources

Projects can result in a substantial adverse change in the significance of a historical resource if they would cause physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired (CEQA Guidelines Section 15064.5). As described above, no known historical resources have been identified within the Project site. Historical resources of an archaeological nature are addressed under archaeological resources (Threshold B).

Archaeological Resources and Human Remains

Archaeological sites are usually adversely affected only by physical destruction or damage that can be caused by grading and excavation, trenching, weather-induced erosion, etc. Impacts to archaeological resources and human remains most often occur as the result of excavation or grading within the vertical or horizontal boundaries of a significant archaeological site. Archaeological resources may also suffer impacts as the result of project activity that increases erosion, or increases the accessibility of a surface resource, and thus increases the potential for vandalism or illicit collection. Because archaeological resources often are buried or cannot be fully defined or assessed on the basis of surface manifestations, substantial ground-disturbing work may have the potential to uncover previously unidentified resources, including archaeological deposits and human remains. As precise fill depths may not be known in all cases, it must be assumed that any ground-disturbing activities in any portion of the study area where development would occur could potentially affect unique archaeological resources, historical resources of an archaeological nature, or subsurface tribal cultural resources.

Paleontological Resources

The analysis also considers whether a unique paleontological resource, site, or unique geologic feature would be directly or indirectly destroyed as a result of the Project. If impacts are determined to be potentially significant, mitigation measures would be provided to reduce impacts to less-than-significant levels, if feasible.

Impacts

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. As indicated above in Section 4.4.1, Existing Conditions, a CHRIS database records search, review of literature and archival resources (historic maps, aerial photographs, and topographic maps), NAHC SLF search, and archaeological pedestrian surveys were conducted for the Project site. The NAHC's SLF search results were negative. The CHRIS database search identified one previously recorded cultural resource overlapping the Quarry at Pawnee site: P-36-020981/CA-SBR-13515H. As described above, resource P-36-020981/CA-SBR-13515H was recommended ineligible for inclusion in the CRHR and is also not considered to meet the criteria of a unique archaeological resource pursuant to CEQA Guidelines Section 15064.5. In addition to this previously recorded resource, surveyors identified four previously unknown/undocumented historic-period refuse scatters within the Quarry at Pawnee site: 22-0512-GS-001, 22-0512-GS-002, 22-0512-GS-003, and 22-0512-GS-004. The cultural materials observed within these scatters generally consist of historic-period cans and glass bottle fragments. All four newly identified historic-period refuse scatters were recommended as ineligible for inclusion in the CRHR because the criteria or integrity considerations for listing on the CRHR were not met and this resource was also not considered to meet the criteria of a unique archaeological resource pursuant to CEQA Guidelines Section 15064.5. Therefore, no further cultural

considerations are required for resources P-36-020981/CA-SBR-13515H, 22-0512-GS-001, 22-0512-GS-002, 22-0512-GS-003, and 22-0512-GS-004. No previously recorded or newly identified cultural resources were identified for the Cordova Complex site through the CHRIS database records search or the pedestrian survey.

The results of the geotechnical investigation (see Appendix F) indicate that native younger and/or older alluvial soils extend within the Project site from surface elevation to maximum depths explored. Cultural deposits typically exist within A soil horizon (topsoil) and B soil horizon (subsoil) of native soils that usually extend to an approximate depth of 6 feet below ground surface in locations not exposed to recent alluvial deposits. However, in areas where environmental conditions include alluvial activity, the depth where cultural material can be found has the potential of being considerably deeper. Natural alluvial features such as intermittent streams are present on the Project site. Consequently, it is possible for intact, buried archaeological deposits, including unique archaeological resources or historical resources of an archaeological nature, to exist within native soils on the Project site. If yet unknown archaeological resources, meeting the criteria of a unique archaeological resource pursuant to CEQA Guidelines Section 15064.5, 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 a unique archaeological resource or historical resource of an archaeological nature pursuant to CEQA Guidelines Section 15064.5.

Thus, mitigation is required to address potentially significant 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 a less-than-significant level.

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, and the results of the NAHC SLF search were negative. Given these findings, the potential to encounter unanticipated human remains on the Project site is low. Nevertheless, the Project would include excavation and grading that would have the potential to uncover, displace, and destroy previously unknown human remains if present. In the event that human remains or funerary objects 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 PRC 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, they are required to notify the NAHC that shall notify those persons believed to be the MLD. The MLD 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, if inadvertently encountered during ground-disturbing activities, 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**.** As indicated above, a review of the NAHC Sacred Lands File was conducted as part of the cultural survey prepared for the Project and the search did not indicate the presence of Native American cultural resources in the immediate Project area. On October 19, 2022, letters were sent to five tribes provided by the NAHC that may have knowledge of cultural resources in or near the Project area. No tribal cultural resources have been identified as a result of this coordination.

The Project is subject to compliance with AB 52 to ensure that consultation with tribes is conducted and tribes are allowed the opportunity to provide comments, monitor, and preserve tribal cultural resources if found during construction. The Town sent notification letters on September 11, 2023, to six California Native American tribal representatives from four tribes and received responses from two tribes: the Yuhaaviatam of San Manuel Nation and the Morongo Band of Mission Indians. The Yuhaaviatam of San Manuel Nation reviewed information provided by the Town and responded that while the Project area is within Serrano ancestral territory, the Tribe did not have any concerns with Project implementation, requested specific mitigation measures be included as part of the Project permit/plan/conditions, and did not request formal consultation.

The Morongo Band of Mission Indians stated that the Project site is located within the ancestral territory and traditional use area of the Cahuilla and Serrano people of the Morongo Band of Mission Indians and requested to initiate formal consultation under AB 52 and requested that the Town provide all relevant Project information. The Town met with the Morongo Band of Mission Indians and no tribal cultural resources were identified by the Morongo Band of Mission Indians that would warrant discretionary designation of a resource as a tribal cultural resource. The Morongo Band of Mission Indians requested specific mitigation measures be included as part of the Project permit/plan/conditions which the Town agreed to include. Therefore, the Project would not adversely affect tribal cultural resources and the Town determined that no substantial evidence has been presented that would demonstrate a significant tribal cultural resource (pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1) exists within the Project site. Notwithstanding, MM CUL-3 and MM TCR-1 through MM TCR-6 are required to help ensure the proper treatment of tribal cultural resources that may be inadvertently encountered during ground-disturbing activities. With incorporation of MM CUL-3 and MM TCR-1 through MM TCR-6, potential impacts associated with tribal cultural resources would be reduced to a less-than-significant level.

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 stated above in Section 4.4.1, Existing Conditions, the SBCM records search did not identify any fossil localities on or within 5 miles of the Project site. In addition, the Project site is not anticipated to contain unique geologic features. Areas of the Project site underlain by Quaternary older alluvial deposits (Qvoa and Qoa) have high paleontological sensitivity because similar deposits have yielded Pleistocene vertebrate fossils in the vicinity. Wash deposits (Qw) mapped on the Project site have low paleontological sensitivity due to their young Holocene age, but they may transition into older Pleistocene-age deposits at depth with high paleontological sensitivity.

In general, the potential for a given Project to result in negative impacts to paleontological resources is directly proportional to the amount of ground disturbance associated with the Project; thus, the higher the amount of ground disturbances within geological deposits with a known paleontological sensitivity, the greater the potential for negative impacts to paleontological resources. The presence of Pleistocene-age sediment at the surface, and potentially at depth in the Project area, suggests that ground disturbance may result in significant impacts to paleontological resources, such as destruction, damage, or loss of scientifically important paleontological resources. If intact paleontological resources are located on site, ground-disturbing activities associated with construction of the Project or off-site improvements, such as grading, excavation, and trenching, would have the potential to destroy a unique paleontological resource, which would be a potentially significant impact. However, upon implementation of MM GEO-1, which requires a Paleontological Resources Impact Mitigation Program be prepared for the Project prior to any site-disturbing activities in addition to paleontological resource sensitivity training for all construction personnel and an on-site Paleontological Monitor present to monitor earth-moving activities, impacts would be reduced to a less-than-significant level.

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 Cumulatively Considerable Impact with Mitigation Incorporated. The geographic scope of the cumulative cultural resources and tribal cultural resources analysis is the region surrounding the Project site, including San Bernardino County. These resource types all represent locations of specific use of the environment and landscape. For cultural resources, this use is primarily associated with the record of past activity. Whereas, for tribal cultural resources, such locations represent a continuity of use that is assigned traditional value by tribes, both in the past and present. The cumulative impact to these non-renewable resources is generally considered in terms of their cultural and/or informational value based on their resource type, context, and relationships to the surrounding landscape and/or tribal histories. With regard to cultural resources (including archaeological resources), the importance of this type of information is revealed through review of the larger historical and archaeological record which, in turn, is dependent on the contribution of shared data resulting from technical investigations. Tribal cultural resources, as well as human remains of Native American origin, while also variable in type, use, and location, are individually identified and assigned value by California Native American tribes.

As discussed previously, the Project would not directly impact any CRHR-eligible historic-era cultural resources or any known prehistoric cultural resources. No tribal cultural resources or human remains have been identified within the Project area. However, there are a limited number of significant cultural resources; therefore, the loss of any one cultural resource site could affect the scientific value of others in a region. Implementation of appropriate

mitigation measures that are identified during the discretionary approval process for cumulative projects can help to capture and preserve knowledge of such resources through a range of typical actions (e.g., preservation in place, data recovery, conformance with the Secretary of the Interior's Standards), and federal, state, and local laws can also protect these resources. However, because all significant cultural resources are unique and non-renewable and preservation in place is not always feasible, the Project in addition to cumulative projects could result in a potentially significant cumulative impact on cultural and tribal cultural resources.

The Project as well as other cumulative projects would be required by law to comply with all applicable federal, state, and local requirements related to historical, archaeological, and tribal cultural resources. Future projects within the region would also be subject to the same requirements as the Project. Technical studies and consultation would be required as part of the due diligence process and would result in the documentation and appropriate consideration of any resources that may be present. Regulations in the region for management of tribal cultural resources and cultural resources would apply to development within and outside the Town. Development within Apple Valley is subject to the General Plan, which provides policies that safeguard cultural resources from unnecessary impacts. These include General Plan Policy 1C, which requires the Town, to the greatest extent possible, to protect sensitive archaeological and historical resources from vandalism and illegal collection.

As discussed above, the Project would have potentially significant impacts on archaeological resources and tribal cultural resources related to the potential for inadvertent discoveries during ground-disturbing construction activities. Mitigation measures identified herein (MM CUL-1 through MM CUL-3 and MM TCR-1 through MM TCR-6) would avoid substantial adverse changes in the significance of cultural and tribal cultural resources. Therefore, with incorporation of these mitigation measures, the Project's contribution to the potentially significant cumulative impact on cultural and tribal cultural resources would not be cumulatively considerable.

Paleontological Resources

Less than Cumulatively Considerable with Mitigation Incorporated. Cumulative impacts on paleontological resources consider whether the impacts of the Project together with other related projects would substantially diminish the number of paleontological resources within the same or similar context or property type. Potential cumulative impacts on paleontological resources would result from future development in the Town and in the vicinity of the Project site that combine to create an environment where fossils are vulnerable to destruction by earthmoving equipment, looting by the public, and natural causes such as weathering and erosion. Most impacts on paleontological resources depend on site-specific conditions and features, such as soil composition and topography and are therefore generally mitigated on a project-by-project basis. Cumulative projects, the same as the Project would be required to assess impacts to paleontological resources as part of the discretionary approval process. Additionally, as needed, projects would incorporate individual mitigation for site-specific geological units present on each individual project site. However, it is possible that Project along with other cumulative projects could have a significant cumulative impact on paleontological resources if individual projects are not properly mitigated.

As indicated above, the Project would have potentially significant impacts on paleontological resources if encountered during ground-disturbing construction activities; however, the mitigation measure provided (MM GEO-1) would ensure any significant paleontological resources uncovered during Project excavations would be properly analyzed and salvaged by the on-site paleontological monitor, thereby avoiding complete destruction of the find. Therefore, with incorporation of MM GEO-1, the Project's contribution to the potentially significant cumulative impact on paleontological resources would not be cumulatively considerable.

4.4.5 Mitigation Measures and Level of Significance After Mitigation

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 would result in a potentially significant impact on archaeological resources if inadvertently encountered during ground-disturbing activities. With implementation of MM CUL-1 through MM CUL-3 the impact on archaeological resources would be less than significant with mitigation incorporated.

MM CUL-1: Workers Environmental Awareness Program (WEAP) and Cultural Resource Sensitivity Training. Prior to any ground-disturbing activities (including, but not limited to, clearing, grubbing, tree and bush removal, grading, trenching, fence post replacement and removal, construction excavation, excavation for all utility and irrigation lines, and landscaping phases of any kind), and prior to the issuance of grading permits, the Applicant or contractor shall retain a qualified archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards. The archaeologist shall conduct a Workers Environmental Awareness Program (WEAP) and Cultural Resource Sensitivity Training for all construction personnel and monitors who are not trained archaeologists. In attendance shall be the consulting Tribe(s) Tribal Historic Preservation Officer, and/or designated Tribal Representative.

The training session shall focus on the archaeological and tribal cultural resources that may be encountered during ground-disturbing activities as well as the procedures to be followed in the event of an unanticipated discovery. A basic presentation shall be prepared and presented by the 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: Archaeological and Native American Construction Monitoring. Prior to the issuance of grading permits, the Applicant shall retain a qualified archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards and enter into a Tribal Monitoring Agreement with the consulting Tribe(s) for the Project. The qualified archaeological and Tribal Monitor(s) shall be on site during all ground-disturbing activities (including, but not limited to, clearing, grubbing, tree and bush removal, grading, trenching, fence post placement and removal, construction excavation, excavation for all utility and irrigation lines, and landscaping phases of any kind). The Tribal Monitor(s) shall have the authority to temporarily divert, redirect, or halt the ground-disturbing activities to allow identification, evaluation, and potential recovery of cultural resources and/or tribal cultural resources.

The qualified archaeologist, in consultation with the Tribal Monitor(s), shall be responsible for determining the duration and frequency of monitoring, and 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 frequency of inspections shall depend on the rate of excavation, the materials excavated, and any discoveries of Tribal Cultural Resources as defined in California Public Resources Code Section 21074. Archaeological and Native American monitoring shall be discontinued when the depth of grading and the soil conditions no longer retain the potential to contain 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 South Central Coast Information Center 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 will be necessary.

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

The Project would result in a less-than-significant impact associated with the disturbance of human remains, including those interred outside of formal cemeteries, if inadvertently encountered during ground-disturbing activities. No mitigation is required.

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 could result in a potentially significant impact on tribal cultural resources if inadvertently encountered during ground-disturbing activities. With the incorporation of MM CUL-3 (described above), and MM TCR-1 through MM TCR-6, impacts associated with tribal cultural resources would be less than significant with mitigation incorporated.

MM TCR-1: Cultural Resources Monitoring and Treatment Plan. Prior to any ground-disturbing activities the Project archaeologist shall develop a Cultural Resources Monitoring and Treatment Plan (Plan) to address the details, timing, and responsibilities of all archaeological and cultural resource activities that occur on the Project site. This Plan shall be written in consultation with the consulting Tribe(s) and shall include the following: approved Mitigation Measures (MM)/Conditions of Approval (COA), contact information for all pertinent parties, parties' responsibilities, procedures for each MM or COA, and an overview of the Project construction schedule.

In the event that cultural resources are discovered during Project activities, all work shall follow protocols outlined under MM CUL-3 (Inadvertent Discovery of Archaeological Resources). 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 (Archaeological and Native American Construction Monitoring), makes his/her 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, the Cultural Resources Monitoring and Treatment Plan, created by the qualified archaeologist in coordination with the consulting Tribe(s), shall be followed and all subsequent discoveries shall be subject to this Plan. 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: Consultation with Consulting Tribes. Any and all archaeological/cultural documents created as a part of the Project (isolate records, site records, survey reports, testing reports, etc.) shall be supplied to the applicant and lead agency for dissemination to consulting Tribe(s). The lead agency and/or applicant shall, in good faith, consult with the consulting Tribe(s) throughout the life of the Project.

MM TCR-3: Pre-Grade Meeting. The retained qualified archaeologist and consulting Tribe(s) representative shall attend the pre-grade meeting with the grading contractors to explain and coordinate the requirements of the monitoring plan (in conjunction with the training held under MM CUL-1 (Workers Environmental Awareness Program [WEAP] and Cultural Resource Sensitivity Training).

MM TCR-4: Inadvertent Discovery of Tribal Cultural Resources. In the event that previously unidentified tribal cultural resources are unearthed during construction, the qualified archaeologist and the Tribal Monitor(s) shall have the authority to temporarily divert and/or temporarily halt ground-disturbance operations in the area of discovery to allow for the evaluation of potentially significant cultural resources. Isolates and clearly non-significant deposits shall be minimally documented in the field and collected so the monitored grading can proceed. This measure is in conjunction with mitigation measure MM CUL-3 (Inadvertent Discovery of Archaeological Resources).

If a potentially significant tribal cultural resource(s) is discovered, work shall stop within a 60-foot perimeter of the discovery and an Environmentally Sensitive Area physical demarcation/barrier constructed. All work shall be diverted away from the vicinity of the find, so that the find can be evaluated by the qualified archaeologist and Tribal Monitor[s]. The archaeologist shall notify the lead agency and consulting Tribe(s) of said discovery. The qualified archaeologist, in consultation with the lead agency, the consulting Tribe(s), and the Native American monitor, shall determine the significance of the discovered resource. A recommendation for the treatment and disposition of the Tribal Cultural

Resource shall be made by the qualified archaeologist in consultation with the Tribe[s] and the Native American monitor[s] and be submitted to the lead agency for review and approval. Below are the possible treatments and dispositions of significant cultural resources in order of CEQA preference:

A. Full avoidance.

B. If avoidance is not feasible, Preservation in place.

If Preservation in place is not feasible, all items shall be reburied in an area away from any future impacts and reside in a permanent conservation easement or Deed Restriction.

C. If all other options are proven to be infeasible, data recovery through excavation and then curation in a Curation Facility that meets the Federal Curation Standards (36 CFR 79).

MM TCR-5: Inadvertent Discovery of Native American Human Remains. The following specific conditions to be imposed in order to protect Native American human remains and/or cremations. No photographs are to be taken except by the coroner, with written approval by the consulting Tribe(s).

A. Should human remains, cremations, and/or funerary objects be encountered on the surface or during any and all ground-disturbing activities (i.e., clearing, grubbing, tree and bush removal, grading, trenching, fence post placement and removal, construction excavation, excavation for all water supply, electrical, and irrigation lines, and landscaping phases of any kind), work in the immediate vicinity of the discovery shall immediately stop within a 100-foot perimeter of the discovery. The area shall be protected by the establishment of an Environmentally Sensitive Area with a marked boundary. Project personnel/observers shall be restricted from entry into the Environmentally Sensitive Area. The County Coroner shall be contacted within 24 hours of discovery. The County Coroner has 48 hours to make his/her determination pursuant to State and Safety Code Section 7050.5 and Public Resources Code (PRC) Section 5097.98.

B. In the event that the human remains and/or cremations are identified as Native American, the Coroner shall notify the Native American Heritage Commission within 24 hours of determination pursuant to subdivision (c) of HSC Section 7050.5.

C. The Native American Heritage Commission shall immediately notify the person or persons it believes to be the Most Likely Descendant (MLD). The MLD has 48 hours, upon being granted access to the Project site, to inspect the site of discovery and make his/her recommendation for final treatment and disposition, with appropriate dignity, of the remains and all associated grave goods pursuant to PRC Section 5097.98.

D. Once the MLD has been named, the Tribe may wish to rebury the human remains and/or cremation and sacred items in their place of discovery with no further disturbance where they will reside in perpetuity. The place(s) of reburial shall not be disclosed by any party and is exempt from the California Public Records Act (California Government Code Section 6254[r]). Reburial location of human remains and/or cremations shall be determined by the Tribe's MLD, the landowner, and the Town Planning Department.

MM TCR-6: Final Report. The final report(s) created as a part of the Project (Cultural Resources Monitoring and Treatment Plan, isolate records, site records, survey reports, testing reports, etc.) shall be submitted to the lead agency and consulting Tribe(s) for review and comment. After approval of all parties, the final reports shall be submitted to the South Central Coast Information Center and the consulting Tribe(s).

Threshold F: Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

The Project would result in a potentially significant impact on paleontological resources if inadvertently encountered during ground-disturbing activities. With implementation of MM GEO-1, impacts associated with unique paleontological resources would be less than significant with mitigation incorporated.

MM GEO-1: Paleontological Resources. The Project Applicant or proponent shall implement the following measures to protect paleontological resources.

- Paleontological Resources Impact Mitigation Program. Prior to commencement of any grading activity on site, the Project Applicant or proponent shall retain a Qualified Paleontologist to per the Society of Vertebrate Paleontology (SVP) (2010) guidelines. The Qualified Paleontologist shall prepare and implement a Paleontological Resources Impact Mitigation Program (PRIMP) for the Project. The PRIMP shall be consistent with the SVP (2010) guidelines and should outline requirements for preconstruction meeting attendance and worker environmental awareness training, where monitoring is required within the proposed Project site based on construction plans and/or geotechnical reports, procedures for adequate paleontological monitoring and discoveries treatment, and paleontological methods (including sediment sampling for microvertebrate fossils), reporting, and collections management. The qualified paleontologist shall attend the preconstruction meeting and a qualified paleontological monitor shall be on site during all rough grading and other significant ground-disturbing activities (including augering) in previously undisturbed, fine-grained Pleistocene alluvial deposits.
- Construction Worker Paleontological Resources Sensitivity Training. Prior to the commencement of Project ground-disturbing activities, a Qualified Paleontologist shall present a paleontological resources sensitivity training (or may be provided via digital recording) to project construction personnel. The paleontologist shall inform construction personnel about the laws protecting paleontological resources; the types of paleontological resources that could be encountered; the proper procedures to follow in the event of a paleontological discovery; and safety precautions to be taken when working with paleontological monitors. The Project Applicant shall provide the training agenda, materials, and attendance records to the Town within 5 business days of any request.
- Paleontological Monitoring. During grading and excavation activities, a qualified Paleontological Monitor shall be present to monitor the earth-moving activities in accordance with the Project paleontological assessment report or the PRIMP. Should paleontological resources be encountered, the Paleontological Monitor shall have the authority to halt ground-disturbing activities; and immediately notify the Qualified Paleontologist of the find; and inspect, document, and salvage the find as necessary. The Qualified Paleontologist shall prepare and submit a final report summarizing monitoring results to the Town and the San Bernardino County Museum.
- Paleontological Resources Recovery Plan. If paleontological resources are discovered during earthmoving activities, the Qualified Paleontologist meeting Society of Vertebrate Paleontology (SVP 2010) standards shall prepare and submit a Paleontological Resources Recovery Plan (PRRP) to the Town for review and approval. The recovery plan shall include, but is not limited to, sampling and fossil recovery procedures, museum curation for any

scientifically significant specimen recovered, and a report of findings. Recommendations in the recovery plan as approved by the County shall be implemented before construction activities can resume at the site where the paleontological resources were discovered. All reports and plans resulting from implementation of this measure shall be submitted to the Town and filed with the San Bernardino County Museum.

- Paleontological Resources Discoveries Protocols. If fossils are discovered during earthmoving activities, the Paleontological Monitor shall be authorized to halt the ground-disturbing activities within an appropriate buffer area determined by the Paleontological Monitor. The paleontologist shall implement the PRIMP and oversee the collection of sediment samples and exposed fossils for processing and evaluation. Any fossils encountered and recovered shall be prepared to the point of identification, catalogued, and curated at a public, nonprofit institution with a research interest in the material and with retrievable storage, such as the San Bernardino County Museum, if such an institution agrees to accept the fossils. Accompanying notes, maps, and photographs shall also be filed at the repository. All costs for lab work and curation fees are the responsibility of the project proponent or applicant. If no institution accepts the fossil collection, it may be donated to a local school or other interested organization in the area for educational purposes. The paleontologist shall prepare a final report on the collected fossils. The report shall contain an appropriate description of the fossils, treatment, and curation. A copy of the report shall be filed with the Town and the San Bernardino County Museum along with field notes and any other supporting documentation.

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, in combination with past, present, and reasonably foreseeable future development, would result in a potentially significant cumulative impact related to cultural and tribal cultural resources. With implementation of MM CUL-1 through MM CUL-3 and MM TCR-1 through MM TCR-6, the Project's contribution to the potentially significant cumulative impact would be less than cumulatively considerable.

Paleontological Resources

The Project, in combination with past, present, and reasonably foreseeable future development, would result in a potentially significant cumulative impact related to paleontological resources. With implementation of MM GEO-1, the Project's contribution to the potentially significant cumulative impact would be less than cumulatively considerable.

4.4.6 References

Leighton Consulting, Inc. (Leighton). 2023a. *Geotechnical Exploration, Proposed Industrial Warehouse Development, Assessor's Parcel Number (APN's) 0463-213-05, 06, 07, 08, 09, 16, 33, 34, 35, and 46, Southeast of Cordova Road and Dachshund Avenue, Apple Valley, San Bernardino County, California.* February 1, 2023. (See Appendix F.)

Leighton. 2023b. *Geotechnical Exploration, Proposed Industrial Warehouse Development, Assessor's Parcel Number (APN's) 0463-214-06, 07, 08, and 09, Southwest of Quarry Road and Flint Road, Apple Valley, San Bernardino County, California.* February 1, 2023. (See Appendix F.)

PaleoWest. 2023a. *Cultural Resource Assessment for the Cardova Complex Project in the Town of Apple Valley, San Bernardino County, California.* January 31, 2023. (See Appendix E.)

PaleoWest. 2023b. *Cultural Resource Assessment for the Quarry/Pawnee Complex Project in the Town of Apple Valley, San Bernardino County, California.* January 31, 2023. (See Appendix E.)

PaleoWest. 2023c. *Paleontological Resource Assessment for the Cardova Complex Project, Town of Apple Valley, San Bernardino County, California.* January 31, 2023. (See Appendix G.)

PaleoWest. 2023d. *Paleontological Resource Assessment for the Quarry/Pawnee Complex Project, Town of Apple Valley, San Bernardino County, California.* January 31, 2023. (See Appendix G.)

Society of Vertebrate Paleontology (SVP). 2010. *Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources*. 11 p. Accessed November 17, 2023, at https://vertpaleo.org/wp-content/uploads/2021/01/SVP_Impact_Mitigation_Guidelines-1.pdf.

4.5 Energy

This section describes existing conditions related to energy, identifies associated regulatory requirements, evaluates potential project and cumulative impacts, and identifies mitigation measures for any significant or potentially significant impacts related to implementation of the Cordova Complex and Quarry at Pawnee Warehouse Project (Project).

No comments regarding energy were received during the scoping period for this environmental impact report (EIR). All scoping comment letters received are provided in Appendix A.

This analysis is based, in part, on air quality and greenhouse gas (GHG) emissions estimates, prepared by Dudek in December 2023 (Appendix B-1), and the Traffic Impact Analyses prepared by David Evans and Associates in October 2023 (Appendix C).

4.5.1 Existing Conditions

Electricity

According to the U.S. Energy Information Administration (EIA), California used approximately 247,249,865 megawatt hours of electricity in 2021 (EIA 2023a). Electricity usage in California for differing land uses varies substantially by the type 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 is the fourth lowest behind New York, Rhode Island, and Hawaii (EIA 2023b).

Southern California Edison (SCE) provides electricity to the portion of San Bernardino County where the Project site is located. SCE, a subsidiary of Edison International, serves approximately 180 cities in 11 counties across Central and Southern California. SCE reported an annual electrical consumption of approximately 81,129 million kilowatt-hours of electricity in its service area in 2021 (CEC 2023a).

SCE receives electric power from a variety of sources. According to the 2021 SCE Power Content Label, renewable energy accounts for 31.4% of the overall energy resources, with geothermal resources at 5.7%, wind power at 10.2%, large hydroelectric sources at 0.5% and solar energy at 14.9%, and biomass and biowaste sources at 0.1% (CEC 2022).

Natural Gas

According to the EIA, California used approximately 2,056,267 million cubic feet of natural gas in 2022, the most recent year for which data is available (EIA 2023c). 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). In 2021 (the most recent year for which data is available), by sector, industrial uses accounted for 33% of the state's natural gas, followed by 31% from electric power, 22% from residential, 12% from commercial, and 1% from transportation uses (EIA 2023b). While the supply of natural gas in the United States and production in the lower 48 states has increased greatly since 2008, California produces little, and imports over 90% of its supply of natural gas (EIA 2023b).

Natural gas service for the Town of Apple Valley (Apple Valley or 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. According to the Town's Climate Action Plan 2019 Update, natural gas demand in Apple Valley in 2019 was 15,526,732 therms (Town of Apple Valley 2021).

Petroleum

According to the EIA, California used approximately 524 million barrels of petroleum in 2020, with the majority (433 million barrels) used for the transportation sector, which was a substantial reduction from 2019 (659 million barrels of petroleum) due to the COVID-19 pandemic (EIA 2023d). According to EIA's "Energy Outlook 2021", it may take years for the U.S. to return to 2019 levels of energy consumption following the impact of COVID-19 on the U.S. economy and global energy sector (EIA 2021). There are 42 U.S. gallons in a barrel, and in 2020 the total daily use of approximately 60.3 million gallons of total petroleum was consumed in California. 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, Regulatory Framework, 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 Regulatory Framework

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. The regulations identified below only pertain to energy that are not included in either Section 4.2, Air Quality, or Section 4.6, Greenhouse Gas Emissions, of this EIR, or that are specifically referenced in the energy impact determinations herein.

Federal

Federal Energy Policy and Conservation Act and Corporate Average Fuel Economy 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 *Federal Register* 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 2005

In January 2005, the 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 GHGs. 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

In December 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 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 facilitate 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.

State

Warren–Alquist Act

The California Legislature passed the Warren–Alquist Act in 1974, which 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:

- It directed the CEC to formulate and adopt the nation's first energy conservation standards for both buildings constructed, and appliances sold in California.
- It 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.

Integrated Energy Policy Report

Senate Bill (SB) 1389 (Bowen, Chapter 568, Statutes of 2002) requires the CEC to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing the state's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state's economy; and protect public health and safety (California Public Resources Code, Section 25301a). The Energy Commission prepares these assessments and associated policy recommendations every two years, with updates in alternate years, as part of the Integrated Energy Policy Report (IEPR).

The most recent iteration of the IEPR was adopted in 2022, and continues to work towards improving electricity, natural gas, and transportation fuel energy use in California to contribute to the state's climate, energy and air quality goals while maintaining reliability and controlling costs to consumers (CEC 2023b).

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 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 Energy and Mineral Resources Element of the Town's General Plan contains the following goals and policies pertaining to energy for the Project (Town of Apple Valley 2009a).

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.

Program 1.A.1. While considering the future development of more stringent local energy performance standards, the Town shall continue to rigorously enforce all mandated energy-conserving development and building code/regulations.

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 first adopted its 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).

4.5.3 Thresholds of Significance

The significance criteria used to evaluate Project impacts related to energy are based on Appendix G of the California Environmental Quality Act (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 impacts related to energy.

4.5.4 Impact Analysis

This section contains an evaluation of potential environmental impacts associated with the Project related to energy. The section describes the methods used in conducting the analysis and evaluates the Project-specific impacts and contribution to significant cumulative impacts, if any are identified.

Methodology

Construction

Construction of the Project would result in energy consumption primarily associated with use of off-road construction equipment, on-road vendor (material delivery) trucks, and worker vehicles. All details for construction criteria air pollutants discussed in the Methodology subsection in Section 4.2, Air Quality, are also applicable for the estimation of construction-related energy consumption. See Section 4.2.3 for a discussion of construction calculation methodology and assumptions used in the energy analysis. In addition to those assumptions, the following methodology was used to estimate construction energy consumption.

Electricity

Electricity is not expected to be consumed in a large quantity during Project construction, as construction equipment and vehicles are primarily diesel- or gas-powered. Although electrical service would be established to serve construction activities, the amount of electricity that would be used is likely to be small. Temporary electric power for as-necessary on-site 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 "Petroleum."

Petroleum

Potential impacts were assessed using the California Emissions Estimator Model (CalEEMod) Version 2022.1 and inputting construction-specific projected traffic trip generation assumptions (Appendix B-1). Fuel consumption from construction equipment was estimated by converting the total carbon dioxide (CO_2) emissions from each construction phase to gallons of gasoline or diesel using conversion factors for CO_2. The conversion factor for gasoline is 8.78 kilograms per metric ton of CO_2 per gallon, and the conversion factor for diesel is 10.21 kilograms per metric ton of CO_2 per gallon (The Climate Registry 2023). Heavy-duty construction equipment associated with construction activities and vendor trucks were assumed to use diesel fuel. It was assumed that construction workers would travel to and from the Project site in gasoline-powered vehicles. Fuel consumption from worker and vendor trips was estimated by converting the total CO_2 emissions from the construction phase to gasoline or diesel gallons using the conversion factors for CO_2.

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 electronics, equipment, and machinery. CalEEMod was used to analyze electrical usage during operation. As described in Chapter 3, Project Description, the Project would not use natural gas. Thus, the electricity demand estimates were increased accordingly to account for all-electric buildings. Finally, the solar requirements for the buildings were estimated per Title 24, Part 6, Section 9.2 (Prescriptive Requirements for Photovoltaic Systems) and the anticipated kilowatt-hours per year from solar were subtracted from the energy demand estimates for the buildings. Electricity demand for cargo handling and landscaping equipment was also estimated.

Natural Gas

No natural gas would be needed for Project operations.

Petroleum

The fuel consumption resulting from the Project's operational phase would be attributable to vehicles traveling to and from the Project site, as well as a fire pump at each warehouse. The maximum daily trip rates, taken from the Project's transportation analyses included in Section 4.11, Transportation, were 3,682 primary trips per day (2,732 passenger vehicle trips and 950 truck trips) for the Cordova Complex site and 3,451 primary trips per day (2,561 passenger vehicle trips and 890 truck trips) for the Quarry at Pawnee site, which were assumed 7 days per week. 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 discussed in the Methodology subsection in Section 4.2, Air Quality, and Appendix B-1, the Project would generate an estimated 38,465,160 annual VMT along area roadways for all worker vehicles and 27,541,576 annual VMT for trucks. In total, the Project is anticipated to generate 66,006,735 annual VMT at final buildout (Appendix B-1). The 200-horsepower fire pumps were each assumed to operate 1 hour a day for up to 50 hours a year for routine testing and maintenance. Similar to the approach described above for construction petroleum, fuel consumption from on-road vehicles and fire pumps was estimated by converting the respective CO_2 emissions from CalEEMod to gallons of gasoline or diesel using conversion factors for CO_2.

Sustainability Features and Project Design Features

The Project has been designed to include a number of Project Design Features (PDFs) to minimize the Project's environmental impacts. These PDFs are included as part of the Project; however, to ensure the PDFs are implemented during construction and operation, they are included within the Project's Mitigation Monitoring and Reporting Program. The PDFs relevant to energy and energy conservation are listed below and organized by site and building design, construction, and operation. For complete details of the PDFs, see Chapter 3, Project Description.

Building Design

- PDF-DES-1: Sustainable Design/LEED Measures
- PDF-DES-2: Sustainable Concrete Building
- PDF-DES-3: Electrical Infrastructure for Electric Equipment and Vehicles
- PDF-DES-4: Electric Vehicle Charging Stations
- PDF-DES-5: Sustainable Energy, Waste, and Water Design Measures
- PDF-DES-7: Measures to Reduce the Urban Heat Island Effect

Construction

- PDF-CON-2: Provision of Electrical Infrastructure for Construction and Use of Electric Construction Equipment
- PDF-CON-3: Construction Equipment Idling Restrictions
- PDF-CON-4: Construction Haul Truck Requirements

Operation

- PDF-OP-1: Zero-Emission Equipment
- PDF-OP-2: Truck Requirements and Restrictions
- PDF-OP-3: Idling Time Restriction
- PDF-OP-4: Anti-Idling Implementation Measures
- PDF-OP-6: Transportation Demand Management Plan
- PDF-OP-8: Restriction on Cold and/or Refrigerated Space
- PDF-OP-9: Provision of Information Regarding Programs to Reduce Emissions from Trucks
- PDF-OP-10: Provision of Information Regarding Reducing Emissions from Area and Energy Sources

Impacts

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 Impact. The Project's 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. In addition, per PDF-CON-2, all equipment less than 19 kilowatts would be electrically powered, including the generators assumed for construction. The total electricity for any off-road equipment was estimated to be about 124 kilowatt-hours, which 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. In addition, PDF-OP-1 would require zero emission cargo handling and landscaping equipment, which would increase the electrical demand of the Project. Default electricity generation rates in CalEEMod were adjusted to account for the increased electricity demand for the all-electric buildings. In addition, the estimated electricity generated by solar per Title 24 requirements was subtracted from the total electricity generated by the SCE for the buildings. Table 4.5-1 shows the estimated annual operational electricity demand for the Project.

Table 4.5-1. Project Annual Operational Electricity Demand Summary

Project Component	Electricity Demand (kWh/year)
Warehouse Buildings	28,412,418.94
Electric Cargo Handling and Landscaping Equipment	11,338,735.25
Total Project Electricity Demand	**39,751,154.19**

Source: Appendix B-1.
Note: kWh = kilowatt hour.
Electricity demand estimates accounted for the all-electric buildings, Title 24 required solar, and the electricity needed to power the zero-emission cargo handling and landscaping equipment (per PDF-OP-1).

As shown in Table 4.5-1, the Project is anticipated to consume approximately 39,751,154 kilowatt-hours of electricity per year. For context, as described in Section 4.5.1, Existing Conditions, SCE provided 81,129 million kilowatt-hours of electricity in its service area in 2021 (CEC 2023a). 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. In addition, the Project would be required to comply with the applicable Title 24 standards applicable at the time building permits are issued, which could further ensure that the Project's energy demands would not be inefficient, wasteful, or otherwise unnecessary and impacts would be less than significant.

Natural Gas

Natural gas is not required during construction of the Project. In addition, the buildings would be all electric and would not require natural gas during operations. Therefore, there would be no impact.

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 commute trips would also result in petroleum consumption. Heavy-duty construction equipment associated with construction activities and haul trucks involved in moving dirt around the Project sites are assumed to use diesel fuel. Construction workers would travel to and from the Project site and it is assumed these trips would be 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-1. The estimated diesel fuel usage from construction equipment, haul trucks, vendor trucks, and on-site trucks, as well as estimated gasoline fuel usage from worker vehicles is shown in Table 4.5-2.

Table 4.5-2. Construction Petroleum Demand - Unmitigated

Scenario	Off-Road Equipment (diesel)	Vendor Trucks (diesel)	Haul Trucks (diesel)	Worker Vehicles (gasoline)	On-Site Trucks (diesel)
	Gallons				
Construction Total	84,054.21	99,322.75	2,271.31	131,144.75	90.85
				Total Petroleum	316,883.88

Source: Appendix B-1.

In summary, Project construction is conservatively anticipated to consume a total of 316,884 gallons of petroleum. 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 inclusion 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.

The Project would also implement multiple PDFs during construction, that would reduce energy demand by requiring cleaner and/or alternative energy off-road equipment (PDF-CON-1 and PDF-CON-2), idling restrictions (PDF-CON-3), haul truck requirements for newer model years (PDF-CON-4), and construction waste recycling and management (PDF-CON-6). Project construction would represent a "single-event" petroleum demand and would not require an 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, the majority of fuel consumption resulting from the Project would involve the use of motor vehicles traveling to and from the Project site, as well as for the testing and maintenance of the diesel-fueled fire pumps. The Project would also require many PDFs to minimize energy demand, of which PDF-OP-1 (Zero-Emission Equipment) and PDF-OP-11 (Fire Pump Requirements) were accounted for in the quantitative petroleum assessment.[1] Fuel demand estimates for Project operations are provided in Table 4.5-3.

Table 4.5-3. Operational Petroleum Demand - Unmitigated

Project	Employee Vehicles (gasoline)	Haul Trucks (diesel)	Fire Pumps (diesel)
	Gallons		
Operations	1,362,395.75	3,450,641.35	745.93
		Total Petroleum	**4,813,783.03**

Source: Appendix B-1.
Note: Petroleum estimates account for Tier 4 interim fire pump engines per PDF-OP-11. Cargo handling and landscape equipment are not included in the petroleum demand since they would be zero-emission (i.e., non-petroleum fueled) per PDF-OP-1.

As summarized in Table 4.5-3, the Project would result in an estimated annual fuel demand of 4,813,783 gallons of fuel. Fuel would be provided by current and future commercial vendors. Trip generation and VMT associated with the Project are consistent with other industrial uses of similar scale and configuration. That is, 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. In addition, although not accounted for in Table 4.5-3, the Project would also implement measures that would further reduce petroleum demand, such as PDF-DES-3, PDF-DES-4, PDF-OP-2, PDF-OP-3, PDF-OP-4, PDF-OP-6, and PDF-OP-9, which pertain to EV charging stations for passenger vehicles and heavy-duty trucks, cleaner truck fleet, and anti-idling restrictions. 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 would also reduce VMT within the region, acting to reduce regional vehicle energy demands. As supported by the preceding discussions, Project operational 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 its energy demand. Renewable energy sources that were considered for their potential to be used to power the Project, consistent with the CEC's definition of eligible renewables, include biomass, geothermal, solar, wind, and small hydroelectric facilities.

[1] The Project includes additional PDFs that pertain to operations, but quantitative petroleum reductions from these other PDFs cannot be determined at this time.

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 considered feasible options to install on site.

The Project would comply with all applicable Title 24 code provisions, such as the solar ready building mandatory requirements and prescriptive requirements for photovoltaic systems. While the Project does not propose battery storage at this time, the Project does not preclude installation of battery storage in the future if it is determined to be a feasible and compatible option.

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.

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

Less-than-Significant Impact. The Project would be subject to and would comply with, at a minimum, the California Building Energy Efficiency Standards (24 CCR Part 6 and Part 11). Part 6 of Title 24 establishes energy efficiency standards for non-residential buildings, including warehouses, constructed in California to reduce energy demand and consumption. Part 11 of Title 24 sets forth voluntary and mandatory energy measures that are applicable to the Project under CALGreen. For nonresidential projects, some of the key mandatory CALGreen standards involve requirements related to bicycle parking, designated parking for clean air vehicles, EV charging stations for passenger vehicles, shade trees, water conserving plumbing fixtures and fittings, outdoor potable water use in landscaped areas, and construction waste management (24 CCR, Part 11). The Project would comply with all applicable California code requirements for energy efficiency.

Regarding local plans, the 2019 CAP Update presents a number of strategies that make it possible for the Town to meet the state's recommended GHG emissions targets that are consistent with the reduction targets of the state (Town of Apple Valley 2021). These strategies are also in alignment with the Energy and Mineral Resources Element of the Town's General Plan, specifically Policy 1.A through Policy 1.D (Town of Apple Valley 2009a). 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. The Project's consistency with GHG reduction categories from the 2019 CAP Update that pertain to energy are described below:

- Transportation Measures. The Project would require measures that would support reducing GHGs and non-renewable energy demand through the transportation sector. Specifically, implementation of PDF-DES-3 requires electrical infrastructure and conduit to accommodate required and future EV charging stations and PDF-DES-4 requires installation of Level 2 (or faster) EV chargers. In addition, PDF-OP-2, PDF-OP-3, PDF-OP-4, PDF-OP-6, and PDF-OP-9 require cleaner trucks, anti-idling restrictions, and the establishment of transportation demand management programs for occupants with more than 250 employees in order to

reduce employee commute vehicle emissions. Finally, although the requirement for all cargo handling and landscaping equipment to be zero-emission would not specifically be in the transportation sector, this aspect of PDF-OP-1 would also substantially reduce GHG emissions.

- **Energy Efficiency Measures.** The Project would require measures that would support energy efficiency, as specified in PDF-DES-1, PDF-DES-5, and PDF-OP-10. These would include, but not limited to, building design to achieve LEED Silver, compliance with CalGreen building code (Part 11 of Title 24), installation of Energy Star-rated heating, cooling, lighting, and appliances, and provision of information to tenants regarding energy efficiency and related incentive programs. In addition, although not specifically focused on energy efficiency, PDF-DES-5 requires the water efficient landscaping and low-flow indoor fixtures to reduce outdoor and indoor 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 comply with the mandatory solar requirements per Title 24.

Based on the preceding considerations, 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 cumulatively considerable impacts related to energy?

Less-than-Significant Impact. The geographic area considered for the analysis of cumulative energy impacts is the Town of Apple Valley and surrounding areas served by SCE. Potential cumulative impacts on energy would result if the Project, in combination with past, present, and future projects, would result in the wasteful or inefficient use of energy. Significant energy impacts could result from development that would not incorporate sufficient building energy efficiency features, achieve building energy efficiency standards, or if projects result in the unnecessary use of energy during construction or operation.

As discussed under Threshold A and Threshold B above, the Project would not result in wasteful, inefficient, or unnecessary use of energy during construction or operations, nor would it conflict with an applicable plan. Future development in the Town would increase energy demand (projected to be 1,807,978,891 kilowatt-hours per year of electricity and 779,089,325 cubic-feet per month of natural gas) (Town of Apple Valley 2009b). However, future development under the General Plan would be required to adhere to the State of California's current energy efficiency requirements and it is anticipated new development would be more energy efficient. In addition, SCE and Southwest Gas infrastructure are anticipated to expand overtime in order to accommodate the respective regional energy demands (Town of Apple Valley 2009b). Projects identified in Table 4-1, Cumulative Projects, would also primarily be industrial and each would have a construction period during which primarily petroleum would be used; however, it is expected that such usage would be temporary and would not constitute a wasteful, inefficient, or unnecessary consumption of energy. Regarding operations, it is anticipated that these projects would also be designed to be comparable to other similar projects of scale and configuration and would not contribute to any potential cumulative energy impacts. Furthermore, any commercial, residential, and industrial cumulative projects that may take place in the Town would be required to meet or exceed the Title 24 building standards, as applicable, further reducing the inefficient use of energy. Finally, various federal and state regulations, including the Low Carbon Fuel Standard, Pavley Clean Car Standards, and Low Emission Vehicle Program, would serve to reduce the transportation fuel demand of cumulative projects.

For the reasons above, the Project, together with the cumulative projects would not result in wasteful, inefficient, or unnecessary use of energy or conflicts with applicable plans. Therefore, the Project, in combination with past, present, and reasonably foreseeable future development, would not result in a significant cumulative impact related to energy.

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?

The Project would result in a less-than-significant impact with regard to the wasteful, inefficient, or unnecessary consumption of energy resources, during construction or operation. No mitigation is required.

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

The Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency and the impact would be less than significant. No mitigation is required.

Threshold C: Would the Project result in a cumulatively considerable energy impact?

The Project, in combination with past, present, and reasonably foreseeable future development, would not result in a significant cumulative impact related to energy. No mitigation is required.

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4.6 Greenhouse Gas Emissions

This section describes existing conditions related to greenhouse gas (GHG) emissions, identifies associated regulatory requirements, evaluates potential project and cumulative impacts, and identifies mitigation measures for any significant or potentially significant impacts related to implementation of the of the Cordova Complex and Quarry at Pawnee Warehouse Project (Project).

Comments regarding GHG emissions were received from the State of California Department of Justice during the scoping period for this environmental impact report (EIR). These comments included concerns about GHG emissions and recommended control measures. The recommended measures were considered and incorporated where feasible into the Project Design Features (PDFs) developed for the Project (see Chapter 3, Project Description). All scoping comment letters received are provided in Appendix A.

This analysis is based, in part, on air quality and GHG emissions calculations, prepared by Dudek in December 2023 (Appendix B-1), and the Traffic Impact Analyses, prepared by David Evans and Associates in October 2023 (Appendix C).

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 California Environmental Quality Act [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.

[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 2023a), and EPA's Glossary of Climate Change Terms (EPA 2017).

- **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 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 ozone (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. Top Greenhouse-Gas-Producer Countries

Country	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: GHG = greenhouse gas; 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 a 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. Greenhouse Gas 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 CO_2e and have remained below that level since that time (CARB 2022a).

Local Inventory

The Town of Apple Valley (Apple Valley or Town) has an adopted Climate Action Plan (CAP), which was approved in July 2010. The Town adopted a 2019 CAP Update in 2021, which includes the following 2019 GHG emissions inventory provided in Table 4.6-3 (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%
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 in 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 2018) 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 Deserts region include the following (CNRA 2018):

- 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 Regulatory Framework

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.

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. Its central aim is to keep 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 2023). The Paris Agreement also aims to strengthen the ability of countries to deal with the impacts of climate change. 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."

These two findings were necessary to establish the foundation for regulation of GHGs from new motor vehicles as air pollutants under the Clean Air Act.

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 *Federal Register* (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 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 California Code of Regulations [CCR] 95100–95157) incorporated by reference certain requirements that EPA promulgated in its Final Rule on Mandatory Reporting of GHGs (40 Code of Federal Regulations, 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 short-lived climate pollutants (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.

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.

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 diesel particulate matter (DPM), a major source of black carbon, and oxides of nitrogen (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 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 2023b). 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 2023b). 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, or approximately 90,718 MT CO_2e per year (MDAQMD 2020).

Southern California Association of Governments

As noted above, California's 18 MPOs have been tasked with creating SCSs in an effort to reduce the region's vehicle miles traveled (VMT) in order to help meet AB 32 targets through integrated transportation, land use, housing, and environmental planning. Pursuant to SB 375, CARB set per-capita GHG emissions reduction targets from passenger vehicles for each of the state's 18 MPOs. For the Southern California Association of Governments (SCAG), the state's initial mandated reductions were set at 8% by 2020 and 13% by 2035. In March 2018, CARB updated the SB 375 targets for SCAG to require 8% reduction by 2020 and a 19% reduction by 2035 in per-capita passenger vehicle GHG emissions.

Pursuant to Government Code Section 65080(b)(2)(B), the SCS must "set forth forecasted development pattern for the region which when integrated with the transportation network, and other transportation measures and policies, will reduce the GHG emissions from automobiles and light trucks to achieve the GHG reduction targets." To that end, SCAG has developed Connect SoCal, the 2020–2045 RTP/SCS, which complies with CARB's updated emissions reduction targets and meets the requirements of SB 375 by achieving per-capita GHG emissions reductions relative to 2005 of 8% by 2020 and 19% by 2035 (SCAG 2020). In addition, the plan anticipates a 25.7% decrease in time spent in traffic delay per capita and a 5% decrease in daily miles driven per capita from 2016 to 2045. The 2020–2045 RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals, and charts a path toward a more mobile, sustainable and prosperous region by making connections between transportation networks, between planning strategies, and between the people whose collaboration can improve the quality of life for southern Californians. Connect SoCal embodies a collective vision for the region's future and is developed with input from local governments, county transportation commissions, tribal governments, non-profit organizations, businesses and local stakeholders within the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura (SCAG 2020).

Town of Apple Valley General Plan

The 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).

4.6.3 Thresholds of Significance

The significance criteria used to evaluate Project impacts related to GHG emissions 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 related to greenhouse gas 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]).

The extent to which a project increases or decreases GHG emissions in the existing environmental setting should be estimated in accordance with CEQA Guidelines Section 15064.4, Determining the Significance of Impacts from Greenhouse Gas Emissions. The CEQA Guidelines indicate that when calculating GHG emissions resulting from a project, lead agencies shall make a good-faith effort based on scientific and factual data (Section 15064.4 (a)), and lead agencies have discretion to select the model or methodology deemed most appropriate for enabling decision makers to intelligently assess the project's incremental contribution to climate change (Section 15064.4 [c]).

The CEQA Guidelines do not indicate an amount of GHG emissions that constitutes a significant impact on the environment. Instead, they authorize the lead agency to 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 (CEQA Guidelines Sections 15064.4[a] and 15064.7[c]).

The Governor's Office of Planning and Research (OPR) technical advisory titled *CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review*, states that "public agencies are encouraged but not required to adopt thresholds of significance for environmental impacts. Even in the absence of clearly defined thresholds for GHG emissions, the law requires that such emissions from CEQA projects must be disclosed and mitigated to the extent feasible whenever the lead agency determines that the project contributes to a significant, cumulative climate change impact" (OPR 2018). Furthermore, the advisory document indicates that "in the absence of regulatory standards for GHG emissions or other scientific data to clearly define what constitutes a 'significant impact,' individual lead agencies may undertake a project-by-project analysis, consistent with available guidance and current CEQA practice" (OPR 2008).

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 used 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 of Significant Deterioration (PSD) or Title V are required. The Tailoring Rule establishes a threshold of 100,000 tons per year or 90,719 MT 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. Similarly, the MDAQMDs NO_x significance threshold of 25 tons per year is equal to the major source threshold applicable to areas designated severe non-attainment for ozone. As such, use of the EPA's determination of whether a Project is a major source and consequently establishing a threshold based on that is supported by substantial evidence.

The 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 CO_2e 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 CO_2e per year), commercial projects (1,400 MT CO_2e per year), and mixed-use projects (3,000 MT CO_2e per year). Under option 2, a single numerical screening threshold of 3,000 MT CO_2e 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 CO_2e per service population for project level analyses and 6.6 MT CO_2e

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 resut in a significant GHG emissions impact under CEQA because it is more stringent than the MDAQMD threshold and the SCAQMD is 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).

In addition, the Project was evaluated for its potential to conflict with SB 32 (2017 Scoping Plan) and AB 1279 (2022 Scoping Plan), the Town's CAP, and with SCAG's RTP/SCS.

4.6.4 Impact Analysis

This section contains an evaluation of potential environmental impacts associated with the Project related to GHG emissions. The section describes the methods used in conducting the analysis and evaluates the Project-specific impacts and contribution to significant cumulative impacts, if any are identified.

Methodology

Construction

The CalEEMod Version 2022.1 model 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 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. An operational year of 2026 was assumed consistent with completion of Project construction.

Mobile Sources

All details for criteria air pollutants discussed in Section 4.2.3 (Thresholds of Significance, Methodology subsection) of Section 4.2, Air Quality, are also applicable for the estimation of operational mobile source 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 the EMission FACtor (EMFAC) 2021 model.

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.

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. GHGs are also emitted during the generation of electricity from fossil fuels; these emissions are considered to be indirect emissions. As described in Chapter 3, Project Description, the Project would not use natural gas. The electricity demand estimates were increased accordingly to account for the all-electric facilities. Finally, the solar requirements for the facilities were estimated per Title 24, Part 6, Section 9.2 (Prescriptive Requirements for Photovoltaic Systems) and the anticipated kilowatt-hours per year from solar were subtracted from the energy demand estimates for the buildings.

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.

Solid Waste

Industrial land uses result in the generation and disposal of solid waste. A large percentage of this waste would 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 would be disposed of at a landfill. GHG emissions from landfills are associated with the anaerobic breakdown of material.

Refrigerants

Refrigerants are substances used in equipment for air conditioning (A/C) and refrigeration. Most of the refrigerants used today are hydrofluorocarbons or blends thereof, which can have high GWP values. All equipment that uses refrigerants has a charge size (i.e., quantity of refrigerant the equipment contains), and an operational refrigerant

leak rate, and each refrigerant has a GWP that is specific to that refrigerant. CalEEMod default values were applied, which quantify refrigerant emissions from leaks during regular operation and routine servicing over the equipment lifetime, and then derives average annual emissions from the lifetime estimate (CAPCOA 2022). As no cold storage is Project, refrigerants were not included for the building operations.

Stationary Sources

The Project would potentially operate one diesel-fueled 200-horsepower (hp) fire pump (one at each warehouse building). These fire pumps were each assumed to operate one-hour a day for up to 50-hours a year for routine testing and maintenance.

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, 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 64 forklifts (forklifts and pallet jacks) and 10 yard tractors operating at 24 hours a day for 365 days of the year.

Sustainability Features and Project Design Features

The Project has been designed to include a number of PDFs to minimize the Project's environmental impacts. These PDFs are included as part of the Project; however, to ensure the PDFs are implemented during construction and operation, they are included within the Project's Mitigation Monitoring and Reporting Program. The PDFs relevant to GHG emissions are listed below and organized by site and building design, construction, and operation. For complete details of the PDFs, see Chapter 3, Project Description.

Building Design

- PDF-DES-1: Sustainable Design/LEED Measures
- PDF-DES-2: Sustainable Concrete Building
- PDF-DES-3: Electrical Infrastructure for Electric Equipment and Vehicles
- PDF-DES-4: Electric Vehicle Charging Stations
- PDF-DES-5: Sustainable Energy, Waste, and Water Design Measures
- PDF-DES-7: Measures to Reduce the Urban Heat Island Effect

Construction

- PDF-CON-1: Heavy-Duty Off-Road Construction Equipment Requirements/Restrictions
- PDF-CON-2: Provision of Electrical Infrastructure for Construction and Use of Electric Construction Equipment
- PDF-CON-3: Construction Equipment Idling Restrictions
- PDF-CON-4: Construction Haul Truck Requirements
- PDF-CON-8: Construction Logs

Operation

- PDF-OP-1: Zero-Emission Equipment
- PDF-OP-2: Truck Requirements and Restrictions
- PDF-OP-3: Idling Time Restriction
- PDF-OP-4: Anti-Idling Implementation Measures
- PDF-OP-6: Transportation Demand Management Plan
- PDF-OP-8: Restriction on Cold and/or Refrigerated Space
- PDF-OP-9: Provision of Information Regarding Programs to Reduce Emissions from Trucks
- PDF-OP-10: Provision of Information Regarding Reducing Emissions from Area and Energy Sources
- PDF-OP-11: Fire Pump Requirements

Impacts

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 Impact. The MDAQMD follows the SCAQMD recommendation in calculating the total GHG emissions for construction activities by amortizing the emissions over the life of a project. This is done by dividing construction-period GHG emissions by a 30-year Project life then adding that number to the annual operational phase GHG emissions. As such, Project construction emissions were amortized over a 30-year period and added to the annual operational phase GHG emissions. The amortized construction emissions are presented in Table 4.6-4 and include quantitative reductions from implementation of PDF-CON-1 (Heavy-Duty Off-Road Construction Equipment Requirements/Restrictions).[2]

Table 4.6-4. Estimated Annual Construction Greenhouse Gas Emissions

Year	CO_2	CH_4	N_2O	R	CO_2e
	metric tons per year				
2024	670.58	0.02	0.03	0.50	681.27
2025	2,336.88	0.07	0.16	2.67	2,387.59
2026	40.42	<0.01	<0.01	0.05	40.85
Total for All Years of Construction	**3,047.88**	**0.09**	**0.19**	**3.22**	**3,109.72**
				Amortized Over 30-Years	*103.66*

Source: Appendix B-1.
Notes: GHG = greenhouse gas; CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; R = refrigerants; CO_2e = carbon dioxide equivalent. Totals may not sum due to rounding. Emissions estimates include Tier 4 interim engines for equipment greater than 150 horsepower and electric generators less than 25 horsepower (PDF-CON-1).

As shown in Table 4.6-4, total estimated GHG emissions generated during construction of the Project are approximately 3,110 MT CO_2e. Estimated Project-generated construction emissions amortized over 30 years would be approximately 104 MT CO_2e per year. Detailed construction model outputs are presented in Appendix B-1.

[2] The Project includes additional PDFs that pertain to construction, but quantitative GHG reductions from these other PDFs cannot be determined at this time.

Operation of the Project would generate GHG emissions from mobile sources (vehicular traffic), energy use (utility generation of electricity consumed by the Project), use of electricity associated with water supply, treatment, and distribution and wastewater treatment, solid waste disposal, and stationary sources (fire pump testing and maintenance). Notably, the Project would include all-electric buildings (i.e., no natural gas), as described in Chapter 3, Project Description. The Project would also include many PDFs to minimize emissions, of which PDF-DES-5 (Sustainable Energy, Waste, and Water Design Measures), PDF-OP-1 (Zero-Emission Equipment), and PDF-OP-11 (Fire Pump Requirements) were accounted for in the quantitative assessment.[3] The energy-source GHG emissions accounts for the increased electricity needed for an all-electric facility, as well as the electricity required to power the zero emission cargo handling and landscape equipment. The estimated operational GHG emissions are shown in Table 4.6-5. Detailed operational model outputs are presented in Appendix B-1.

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	47,192.88	0.33	5.35	60.59	48,855.39
Area[1]	0.00	0.00	0.00	--	0.00
Energy[1]	6,242.42	0.60	0.07	--	6,278.79
Water	697.34	18.24	0.44	--	1,283.87
Waste	126.75	12.67	0.00	--	443.44
Off-Road[1]	0.00	0.00	0.00	--	0.00
Stationary	7.62	<0.01	<0.01	0.00	7.64
Total	**54,267.00**	**31.83**	**5.86**	**60.59**	**56,869.13**
				Amortized Construction Emissions	*103.66*
				Operational Emissions plus Amortized Construction Emissions	**56,972.78**

Source: Appendix B-1
Notes: CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; R=refrigerants; CO_2e = carbon dioxide equivalent; GHG = greenhouse gas. Values of "<0.01" indicate that the estimated emissions are less than 0.01 metric tons per year. Totals may not sum due to rounding. Emissions estimates account for the all-electric buildings and no natural gas combustion, as well as solar generation per Title 24 requirements. In addition, a 20% indoor/outdoor water conservation strategy, 50% waste diversion, and energy star appliances were assumed for PDF-DES-5, zero emission cargo handling and landscaping equipment per PDF-OP-1, and Tier 4 interim fire pump engines per PDF-OP-11.
1 The "Energy" source category accounts for the increased electricity requirements to power the all-electric cargo handling and landscaping equipment pursuant to PDF-OP-1.

As shown in Table 4.6-5, the Project would result in approximately 56,973 MT CO_2e per year, 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 potentially significant impact.

The primary sources of GHGs emissions associated with the Project are mobile source vehicles and energy. Although many PDFs have been identified that apply to mobile sources (PDF-DES-3, PDF-DES-4, PDF-DES-6, PDF-OP-2, PDF-OP-3, PDF-OP-4, PDF-OP-5, PDF-OP-6, and PDF-OP-9), quantitative reductions from these mobile source PDFs cannot be determined at this time and neither the Project Applicant nor the Town can substantively or materially affect reductions in the Project's on-road mobile source emissions beyond what is already required by regulation. However, implementation of MM GHG-1 includes the requirement that electricity for the Project be procured through

3 The Project includes additional PDFs that pertain to operations, but quantitative GHG reductions from these other PDFs cannot be determined at this time.

the Apple Valley Choice Energy 100% Renewable Energy Plan, which would reduce the long-term GHG emissions. Table 4.6-6 summarizes the mitigated annual operational emissions associated with the Project. Detailed operational model outputs are presented in Appendix B-1.

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	47,192.88	0.33	5.35	60.59	48,855.39
Area[1]	0.00	0.00	0.00	--	0.00
Energy[1]	0.00	0.00	0.00	--	0.00
Water	697.34	18.24	0.44	--	1,283.87
Waste	126.75	12.67	0.00	--	443.44
Off-Road[1]	0.00	0.00	0.00	--	0.00
Stationary	7.62	<0.01	<0.01	0.00	7.64
Total	**48,024.58**	**31.24**	**5.79**	**60.59**	**50,590.33**
				Amortized Construction Emissions	*103.66*
				Operational Emissions plus Amortized Construction Emissions	**50,693.99**

Source: Appendix B-1
Notes: CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; R=refrigerants; CO_2e = carbon dioxide equivalent; GHG = greenhouse gas. Values of "—" mean that no emissions estimate is provided. Totals may not sum due to rounding.
Emissions estimates account for the all-electric buildings and no natural gas combustion, as well as solar generation per Title 24 requirements. In addition, a 20% indoor/outdoor water conservation strategy, 50% waste diversion, and energy star appliances were assumed for PDF-DES-5, zero emission cargo handling and landscaping equipment per PDF-OP-1, and Tier 4 interim fire pump engines per PDF-OP-11.
[1] The "Energy" source category was zeroed out to account for MM GHG-1 (100% renewable electricity), which also accounts for the electricity requirements to power the all-electric cargo handling and landscaping equipment pursuant to PDF-OP-1.

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 a level that is less than significant. Therefore, even with the incorporation of mitigation, long-term impacts associated with an increase in GHG emissions would be significant and unavoidable.

Threshold B: Would the Project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less-than-Significant Impact with Mitigation. 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. Thus, the Project's consistency with SB 32 (2017 Scoping Plan) and AB 1279 (2022 Scoping Plan), the Town's CAP, 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, Regulatory Framework, 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 a 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 meets 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 is making 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 low-carbon fuel standard, measures identified in the Mobile Source and Freight Strategies, measures identified in the proposed SLCP 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 (low-carbon fuel standard), 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	Potential to Conflict
Implement SB 350 by 2030	
Increase the Renewables Portfolio Standard to 50% of retail sales by 2030 and ensure grid reliability.	***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.

Table 4.6-7. Project Potential to Conflict with 2017 Scoping Plan

Action	Potential to Conflict
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. 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, PDF-DES-1 requires the Project to achieve LEED Silver and PDF-DES-5 requires the installation of Energy Star-rated heating, cooling, lighting, and appliances. In addition, MM GHG-1 requires tenants of the buildings to procure renewable electricity the Apple Valley Choice Energy 100% Renewable Energy Plan.
Implement Mobile Source Strategy (Cleaner Technology and Fuels)	
At least 1.5 million zero emission and plug-in hybrid light-duty EVs by 2025.	***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.
At least 4.2 million zero emission and plug-in hybrid light-duty EVs by 2030.	***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. In addition, PDF-DES-3 requires the Project to install electrical infrastructure for the required number of EV charging spaces, conduit at or near dock doors, as well as electrical rooms of sufficient size to accommodate the upsizing of electrical equipment for future electrical loads, such as for truck EV charging stations.

Table 4.6-7. Project Potential to Conflict with 2017 Scoping Plan

Action	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.).	***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).	***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.	***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.
Adopt a Low Carbon Fuel Standard with a Carbon Intensity reduction of 18%.	***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	***No Conflict.*** While the SB 32 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. The Project would not obstruct or interfere 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 be consistent with the SCAG 2020–2045 RTP/SCS, 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.

Table 4.6-8. Project Potential to Conflict with 2022 Scoping Plan

Sector	Action	Potential to Conflict
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. Furthermore, the Project would support the transition from fossil fuel LDV to ZEV through its provision of Level 2 (or faster) EV chargers (PDF-DES-4).
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. Furthermore, the Project would support the transition from fossil fuel MDV and HDV to ZEV through its installation of conduit at or near dock doors and electrical rooms of sufficient size to accommodate the upsizing of electrical equipment for future electrical loads, such as for truck EV charging stations (PDF-DES-3).
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 MM GHG-1, which requires tenants of the buildings to procure renewable electricity the Apple Valley Choice Energy 100% Renewable Energy Plan.
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 generators and equipment with power rating below 19 kilowatts be electrically powered (PDF-CON-2), as well as zero-emission cargo handling and landscaping equipment to be zero-emission (PDF-OP-1).
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.

Table 4.6-8. Project Potential to Conflict with 2022 Scoping Plan

Sector	Action	Potential to Conflict
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, respectively.

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 with all regulations adopted in furtherance of the Scoping Plan to the extent applicable and required by law. As demonstrated above, the Project would not conflict with CARB's 2017 or 2022 Scoping Plan updates and with the state's ability to achieve the 2030 and 2045 GHG reduction and carbon neutrality goals.

Potential to Conflict with the Town of Apple Valley Climate Action Plan

As previously stated, the 2019 CAP Update presents a number of strategies that make it possible for the Town to meet the state's 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. As described below, the Project would generally 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, implementation of PDF-DES-3 requires electrical infrastructure and conduit to accommodate required and future EV charging stations and PDF-DES-4 requires installation of Level 2 (or faster) EV chargers. In addition, PDF-OP-2, PDF-OP-3, PDF-OP-4, PDF-OP-6, and PDF-OP-9 require cleaner trucks, anti-idling restrictions, and the establishment of transportation demand management programs for occupants with more than 250 employees in order to reduce employee commute vehicle emissions. Finally, although the requirement for all cargo handling and landscaping equipment to be zero-emission would not specifically be in the transportation sector, this aspect of PDF-OP-1 would also substantially reduce GHG emissions.
- **Energy Efficiency Measures.** The Project would require measures that would support energy efficiency, as specified in PDF-DES-1, PDF-DES-5, and PDF-OP-10. These would include, but not limited to, building design to achieve LEED Silver, the installation of Energy Star-rated heating, cooling, lighting, and appliances, and provision of information to tenants regarding energy efficiency and related incentive programs. In addition, although not specifically focused on energy efficiency, PDF-DES-5 requires the water efficient landscaping and low-flow indoor fixtures to reduce outdoor and indoor 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 comply with the mandatory solar requirements per Title 24. In addition, MM GHG-1 requires tenants of the buildings to procure renewable electricity the Apple Valley Choice Energy 100% Renewable Energy Plan.
- **Solid Waste Management Measures.** The Project would be consistent with the Solid Waste Management Measures of the 2019 CAP Update based on PDF-DES-5, which requires waste diversion to reduce the amount of waste disposed at landfills through the provision of storage areas for recyclables, green waste, and food waste.

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. The Project's compliance with the remaining applicable strategies is presented below (also see Table 4.9-1 in Section 4.9, Land Use and Planning).

- **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 reduce VMT. The Project's proximity to existing freeways also helps to reduce VMT 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, PDF-OP-1 would require that all cargo handling and landscaping equipment to be zero-emission. In addition, PDF-DES-3 requires appropriate electrical infrastructure to accommodate required and future electrical loads for EV and equipment charging and PDF-DES-4 requires the installation of Level 2 (or faster) EV chargers.
- **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. The Project would require measures that would support energy efficiency, as specified in PDF-DES-1, PDF-DES-5, and PDF-OP-10, which would include, but not limited to, building design to achieve LEED Silver, the installation of Energy Star-rated heating, cooling, lighting, and appliances, and provision of information to tenants regarding energy efficiency and related incentive programs. In addition, although not specifically focused on energy efficiency, PDF-DES-5 requires the water efficient landscaping and low-flow indoor fixtures to reduce outdoor and indoor 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.

Based on the analysis above, with mitigation, the Project would be consistent with the SCAG 2020-2045 RTP/SCS.

Summary

The Project demonstrates consistency with the CARB's Scoping Plan and would not conflict with other regulations regarding reductions to GHG emissions including AB 32, SB 32, and AB 1279. Additionally, the Project would be consistent with the Town's 2019 CAP Update and the SCAG 2020–2045 RTP/SCS, with implementation of MM GHG-1.

Threshold C: Would the Project result in cumulatively considerable impacts related 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 such, in the Project region and beyond, the Project, in combination with past, present, and reasonably foreseeable future development, would generate GHG emissions that could have a significant cumulative impact on the environment. As shown in Table 4.6-6 above, 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, thus, significant and unavoidable.

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. The primary sources of GHGs emissions associated with the Project are mobile source vehicles and energy. Although many PDFs have been identified that apply to mobile sources (PDF-DES-3, PDF-DES-4, PDF-DES-6, PDF-OP-2, PDF-OP-3, PDF-OP-4, PDF-OP-5, PDF-OP-6, and PDF-OP-9), quantitative reductions from these mobile source PDFs cannot be

determined at this time and neither the Project Applicant nor the Town can substantively or materially affect reductions in the Project's on-road mobile source emissions beyond what is already required by regulation. However, implementation of MM GHG-1 includes the requirement that electricity for the Project be procured through the Apple Valley Choice Energy 100% Renewable Energy Plan, which would reduce the long-term GHG emissions; however, impacts would remain significant and unavoidable.

MM GHG-1 Renewable Energy Plan. Future tenants of the Project shall be required to subscribe to the Apple Valley Choice Energy 100% Renewable Energy Plan, which is 100% renewable and 100% carbon-free, for the duration of occupancy as part of the entitlement agreement. At each lease or change of building ownership, the new lessee or owner shall also be automatically enrolled in the Apple Valley Choice Energy 100% Renewable Energy Plan.

Threshold B: Would the Project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The Project would not conflict with applicable plans, policies or regulations related to GHGs. Impacts would be less-than- significant with incorporation of MM GHG-1.

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, even after incorporation of a rigorous suite of PDFs. Implementation of MM GHG-1 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 existing conditions related to hazards and hazardous materials, identifies associated regulatory requirements, evaluates potential project and cumulative impacts, and identifies mitigation measures for any significant or potentially significant impacts related to implementation of the Cordova Complex and Quarry at Pawnee Warehouse Project (Project).

No comments regarding hazards and hazardous materials were received during the scoping period for this environmental impact report (EIR). All scoping comment letters received are provided in Appendix A.

Some information in this section is derived from a Phase I Environmental Site Assessment (ESA) prepared for the Project (Tartaglino 2021), included in Appendix H.

4.7.1 Existing Conditions

Definition and Overview

As defined in the California Health and Safety Code Section 25501, "hazardous material" means any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant hazard to human health and safety, or to the environment, if released into the workplace or the environment. "Hazardous materials" include, but are not limited to, hazardous substances, hazardous waste, and any material that a handler or the administering agency has a reasonable basis for believing would be injurious to the health and safety of persons, or harmful to the environment if released into the workplace or the environment. Hazardous wastes are hazardous substances that no longer have a practical use, such as material that has been abandoned, discarded, spilled, or contaminated, or is being stored prior to proper disposal.

California Code of Regulations (CCR), Title 22, Chapter 11, Article 2, Section 66261.10 provides the following definition for hazardous waste:

> [A] waste that exhibits the characteristics may: (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported, or disposed or otherwise managed.

According to CCR Title 22, substances having a characteristic of toxicity, ignitability, corrosivity, or reactivity are considered hazardous waste. Toxic substances may cause short-term or long-lasting health effects, ranging from temporary effects to permanent disability or death. For example, toxic substances can cause eye or skin irritation, disorientation, headache, nausea, allergic reactions, acute poisoning, chronic illness, or other adverse health effects if human exposure exceeds certain levels (levels depend on the substance involved). Carcinogens, substances known to cause cancer, are a special class of toxic substances. Examples of toxic substances include most heavy metals, pesticides, and benzene (a carcinogenic component of gasoline). Ignitable substances, such as gasoline, hexane, and natural gas, are hazardous because of their flammable properties. Corrosive substances (e.g., strong acids and bases such as sulfuric battery acid or lye) are chemically active and can damage other materials or cause severe burns upon contact. Reactive substances (e.g., explosives, pressurized canisters, and pure sodium metal, which react violently with water) may cause explosions or generate gases or fumes.

Project Site Conditions

No structures are located on the Project site. The Project site consists of vacant, relatively flat land characterized by a desert landscape, and has been disturbed by illegal dumping, resulting in several debris piles throughout the sites, including an abandoned vehicle on the Cordova Complex site. Ground cover consists of native brush and shrub growth, with a small number of Joshua trees located throughout the site. Elevations range from approximately 3,094 feet above mean sea level (amsl) in the northeast corner to approximately 3,060 feet amsl in the southwest corner of the Cordova Complex site, and from approximately 3,140 feet amsl in the northeast corner to approximately 3,130 feet amsl in the southwest corner of the Quarry at Pawnee site.

The Project site is primarily surrounded by undeveloped land with some scattered rural residences. A Walmart Distribution Center and Victor Valley College Regional Public Safety Training Center are located further to the south.

According to the National Pipeline Mapping System, no natural gas transmission pipelines or hazardous liquid pipelines are located in the Project site vicinity (NPMS 2023). According to the California Geologic Energy Management Division Well Mapping database (CalGEM 2023), there are no active oil and gas wells located in the Project site vicinity.

Phase I Environmental Site Assessment

A Phase I ESA was conducted to identify potential or existing environmental contamination on the site. The Phase I ESA included a site reconnaissance; research and interviews with representatives of the public, property ownership, site manager, and regulatory agencies; a records review including federal and state databases for hazardous materials facilities and sites; and review and evaluation of past and current uses of the site for indications of the manufacture, generation, use, storage, and/or disposal of hazardous substances and evaluation of potential soil and/or groundwater contamination resulting from current and historical land use activities, including those of nearby properties. The regulatory database review for the Project site is included as Section 5.2 of the Phase I ESA (see Appendix H). In addition to the database review, several local and regional agencies involved in regulating and keeping records of hazardous materials for any information connected to the Project site were contacted, including the Town of Apple Valley (Town) Building and Safety Division, California Environmental Protection Agency's Regulated, and the State Water Resources Control Board GeoTracker Database.

According to a review of available historical data, current and past uses of the Project site consist of vacant land, and of the adjoining properties consist of vacant land and residential uses. The Project site was not identified on any government databases pertaining to the storage and disposal of petroleum products and hazardous materials/hazardous waste. No recognized environmental concerns were identified on the Project site or adjoining properties.

4.7.2 Regulatory Framework

Federal

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 a 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.

Hazardous Materials Transportation Act

Transportation of hazardous materials is regulated by the U.S. Department of Transportation's Office of Hazardous Materials Safety. The office formulates, issues, and revises hazardous materials regulations under the Federal Hazardous Materials Transportation Law. The hazardous materials regulations cover hazardous materials definitions and classifications, hazard communications, shipper and carrier operations, training and security requirements, and packaging and container specifications. The hazardous materials transportation regulations are codified in 49 Code of Federal Regulations (CFR) Parts 100–185.

The hazardous materials transportation regulations require carriers transporting hazardous materials to receive training in the handling and transportation of hazardous materials. Training requirements include pre-trip safety inspections, use of vehicle controls and equipment including emergency equipment, procedures for safe operation of the transport vehicle, training on the properties of the hazardous material being transported, and loading and unloading procedures. All drivers must possess a commercial driver's license as required by 49 CFR Part 383. Vehicles transporting hazardous materials must be properly placarded. In addition, the carrier is responsible for the safe unloading of hazardous materials at the site, and operators must follow specific procedures during unloading to minimize the potential for an accidental release of hazardous materials.

Chemical Accident Prevention Provisions (Risk Management Plan)

Code of Federal Regulations Title 40 Part 68, Chemical Accident Prevention Provisions, outlines the rules and requirements for regulated substances and thresholds of those substances. Owners and operators of stationary source[1] facilities that store and handle over the threshold quantity of regulated substances, as identified in Table 1 of 40 CFR Section 68.130, List of Regulated Toxic Substances and Threshold Quantities for Accidental Release Prevention, are required to implement accidental release prevention measures. This includes preparation of a Risk Management Plan (RMP) as described in 40 CFR Sections 68.150 through 68.185. The RMP would include management systems, hazards assessments, prevention programs, and emergency response procedures associated with the applicable regulated substances.

State

California Environmental Protection Agency

The California Environmental Protection Agency (CalEPA) implements and enforces environmental laws that regulate air, water and soil quality, pesticide use and waste recycling and reduction. Departments within CalEPA include the Department of Toxic Substances Control (DTSC), State Water Resources Control Board (SWRCB), and California Air Resources Board (CARB).

[1] "Stationary source" is defined in 40 CFR Section 68.3 as any buildings, structures, equipment, installations, or substance emitting stationary activities which belong to the same industrial group, which are located on one or more contiguous properties, which are under the control of the same person (or persons under common control), and from which an accidental release may occur.

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 DTSC, 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 Environmental Database Reports (EDR) included in the Phase I ESA for the Project. Database search companies usually conduct searches in accordance with American Society for Testing and Materials (ASTM) Standard of Practice E 1527-13 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 DTSC 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 Resource Conservation and Recovery Act (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, commercial), an HMBP may be required (e.g., due to storage of pool chemicals); 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.

California 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.

California Highway Patrol

The California Highway Patrol (CHP), along with the California Department of Transportation (Caltrans) and DTSC, enforce and monitor hazardous materials and waste transportation laws and regulations in California. These agencies determine container types used and license hazardous waste haulers for hazardous waste transportation on public roads. All motor carriers and drivers involved in transportation of hazardous materials must apply for and obtain a hazardous materials transportation license from CHP.

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 San Bernardino County Fire Department (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 (Town of Apple Valley 2014).

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 (Town of Apple Valley 2017).

Apple Valley Municipal Code Section 6.20.150

Hazardous waste prohibited; unauthorized disposal of waste prohibited.

(a) Depositing hazardous waste or household hazardous waste in any container to be collected for disposal by the Town's contractor is prohibited.

(b) It is unlawful and a misdemeanor for any person to burn, bury, or dump solid waste, recyclables, and organic materials within the Town at any time unless a special permit for such burning, burial, or dumping has been issued pursuant to authority conferred by the Town Council or the agency providing fire protection services within the Town.

4.7.3 Thresholds of Significance

The significance criteria used to evaluate Project impacts related to hazards and hazardous materials are based on Appendix G of the California Environmental Quality Act (CEQA) Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to hazards and hazardous materials 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 a result, would create a significant hazard to the public or the environment.

E. Be located within an airport land use plan, be within two miles of a public airport, and would 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 cumulatively considerable impacts related to hazards and hazardous materials.

Issues Not Further Discussed

As analyzed in the initial study (Appendix A), the Project would have no impact related to emissions of hazardous emissions or the handling of hazardous materials, substances, or waste within 0.25 miles of an existing or proposed school, because no schools are located within 0.25 miles of the Project site (Threshold C). As discussed in Appendix A, no impact would occur under Threshold D because the Project site is not located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (i.e., the Cortese List), and no impact would occur under Threshold E because the Project site is not located within a runway protection zone or safety zone area for the Apple Valley Airport, which is more than 2 miles away from the Project site. The Project would have a less-than-significant impact on the Town's emergency response or evacuation plan (Threshold F). The initial study also reported that the Project site is located within a Non-Very High Fire Hazard Severity Zone within a Local Responsibility Area (LRA), and the Project would have no impact related to exposure of people or structures to a significant risk of loss, injury, or death involving wildland fires (Threshold G). Therefore, these issues are not further analyzed in this section. See Appendix A for additional details.

4.7.4 Impact Analysis

This section contains an evaluation of potential environmental impacts associated with the Project related to hazards and hazardous materials. The section describes the methods used in conducting the analysis and evaluates the Project's impacts and contribution to significant cumulative impacts, if any are identified.

Methodology

The Phase I ESA for the Project site (Appendix H) was reviewed to determine if the Project may have a significant impact related to hazards and hazardous materials. This analysis assumes that the Project would comply with relevant federal, state, and local ordinances and regulations, as well as the General Plan policies presented above. Note that, under CEQA, the effects of the existing environment upon a proposed project is not a *project* impact. A project impact occurs when direct or indirect changes to the environment would occur as a result of implementation of the project.

Impacts

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 the Project would not create a significant hazard to the public or the environment during construction.

Furthermore, adherence to all emergency response plan requirements set forth by the Apple Valley Fire Protection District (AVFPD) would be required throughout the duration of Project construction. Therefore, based on compliance with existing regulations, 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, DTSC, Cal/OSHA, RCRA, and the AVFPD.

Although the future tenants are not known at this time, 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. A 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, all hazardous materials would be managed in accordance with applicable federal, state, and local laws and regulations, which are intended to minimize health risk to the public associated with hazardous materials. Therefore, the Project would result in a less-than-significant impact 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. Concrete, paint, and other materials that are also used on construction sites are 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.

Strict federal, state, and local regulations are in place for the transport of hazardous materials and wastes, and for the storage and handling of hazardous materials. Routine transport of hazardous materials to and from the Project site could result in an incremental increase in the potential for accidents; however, the Project would be required to comply with the Caltrans and the CHP regulations for the transport of hazardous materials and wastes, including container types and packaging requirements, as well as licensing and training for truck operators, chemical handlers, and hazardous waste haulers.

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, as discussed above. 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 acre 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 best management practices (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 applicable construction BMPs 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 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 under Threshold A, the future tenants are not known. However, in the event 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 hazard, 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 Town 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, the Project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions and the impact would be less than significant.

In summary, Project construction and operation would result in a less-than-significant impact 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 related to hazards and hazardous materials?

Less-than-Significant Cumulative 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. Generally, these site-

specific impacts would not combine with one another to create cumulative impacts with other projects occurring elsewhere in the Town, unless the cumulative development sites overlapped or were immediately adjacent to one another. There are no known cumulative projects planned within the geographic area of analysis for cumulative impacts related to hazards and hazardous materials.

Nonetheless, like the Project, cumulative development would be required to comply with applicable federal, state, and local laws and regulations regarding the use, transport, handling, storage, disposal, and release of hazardous materials, and include project-specific BMPs or SWPPPs, as applicable. Such compliance would reduce the potential for a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or reasonably foreseeable upset or accident conditions. Therefore, the Project, in combination with past, present, and reasonably foreseeable future development, would result in a less-than-significant cumulative impact related to hazards and hazardous materials.

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 a less-than-significant impact related to creation of a significant hazard to the public or environment through routine transport, use, or disposal of hazardous materials. No mitigation is required.

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 a less-than-significant impact 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 is required.

Threshold H. Would the Project result in cumulatively considerable impacts related to hazards and hazardous materials?

The Project, in combination with past, present, and reasonably foreseeable future development, would result in less-than-significant cumulative impacts related to hazards and hazardous materials. No mitigation is required.

4.7.6 References

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4.8 Hydrology and Water Quality

This section describes existing conditions related to hydrology and water quality, identifies associated regulatory requirements, evaluates potential project and cumulative impacts, and identifies mitigation measures for any significant or potentially significant impacts related to implementation of the Cordova Complex and Quarry at Pawnee Warehouse Project (Project).

No comments regarding hydrology and water quality were received during the scoping period for this environmental impact report (EIR). All scoping comment letters received are provided in Appendix A.

This analysis is based, in part, on the following reports prepared for the Project: preliminary hydrology reports (David Evans and Associates 2022a, 2022b; see Appendix I), water quality management plans (David Evans and Associates 2022c, 2022d; see Appendix J), and a water supply assessment (WSA) (see Appendix K).

4.8.1 Existing Conditions

Regional Watershed

The Project site is located within the Mojave River Watershed, which covers approximately 4,500 square miles in San Bernardino County. The primary drainage of the watershed is the Mojave River, which originates in the San Bernardino Mountains at elevations of approximately 8,500 feet above mean sea level (amsl) at Butler Peak down to approximately 1,400 feet amsl near Afton Canyon (County of San Bernardino 2003). Average elevations within Victor Valley are around 2,900 amsl. The San Bernardino Mountains annually receive greater than 40 inches of precipitation at its 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). The Mojave River is located approximately 7 miles southwest of Project site. The Mojave River Watershed has been subdivided into a number of subwatersheds by the San Bernardino Flood Control District that include the Upper Mojave, Middle Mojave, Lower Mojave, and Mojave–Baker watersheds. Both the Cordova Complex site and Quarry at Pawnee site are located within the Upper Mojave subwatershed which is bounded by the Helendale Fault, northeast of the Project site.

Regional Groundwater

The Project site is located within 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 (also referred to as the Mojave River Basin, Mojave Basin, or Basin) has been divided into five management subareas: Este, Oeste, Alto, Centro, and Baja. Both the Cordova Complex site and Quarry at Pawnee site are located in the Alto Subarea (Mojave Water Agency 2021). In addition, the Alto Transition Zone was created as a sub-management unit 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 locations relative to the Mojave River and the distribution of water use in the Basin (Mojave Water Agency 2015). The Basin is an adjudicated groundwater basin and is exempt from the requirements of developing a Groundwater Sustainability Plan (GSP) pursuant to the Sustainable Groundwater

Management Act as it is designated as a very-low-priority basin by the DWR. The 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 Basin have been delineated into two aquifer systems: the Floodplain Aquifer and Regional Aquifer (Mojave Water Agency 2021).

Topography and Drainage

The Project site is undeveloped and relatively flat. The Cordova Complex site has a gentle southwest slope with elevations ranging from approximately 3,094 amsl in the northeast corner down to approximately 3,060 feet amsl in the southwest corner of the site at an approximate grade of 2.3%. Native vegetation consists of desert scrub with poor cover. Approximately 66.8 acres of the Cordova Complex site flows west to the Bell Mountain Wash, and the Bell Mountain Wash flows southwest to the Mojave River. The remaining southerly 18.5 acres of the Cordova Complex site flows south toward a dry lakebed via Johnson Road where it flows through the Walmart Distribution Center south of Johnson Road and then flows south towards a dry lakebed south of the Apple Valley Airport (Appendix I).

The Quarry at Pawnee site has a gentle southwest slope with elevations ranging from approximately 3,140 amsl in the northeast corner down to approximately 3,130 feet amsl in the southwest corner of the site at an approximate grade of 2.3%. Native vegetation consists of desert scrub with poor cover. Drainage flows west toward the Bell Mountain Wash, and the Bell Mountain Wash flows southwest to the Mojave River, approximately 7.5 miles south of the Quarry at Pawnee site.

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 (Apple Valley or Town) 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 (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 include 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 U.S. 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 River – Mojave Forks Reservoir Outlets to the Upper Narrows segment and Upper Narrows to Lower Narrows segment (SWRCB 2020).

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. Both of the above segments of the Mojave River are listed as impaired and a TMDL is required. The Mojave Forks Reservoir outlet to Upper Narrows is listed as impaired by fluoride, sodium, and sulfates whereas the Upper Narrows to Lower Narrows segment is impaired by fluoride, manganese, dissolved oxygen, sodium, sulfates, and total dissolved solids (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).

The Lahontan RWQCB assembled a stakeholder group (the Mojave River Watershed Group), including 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 is responsible for developing and implementing a regional stormwater management plan as required by the Phase II Small Municipal Separate Storm Sewer Systems (MS4) Permit. 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.

Water Supply

The Project site is within the water service area established for Liberty Utilities (Liberty Utilities 2021). Liberty Utilities currently supplies water to the nearby Walmart Distribution Center, just south of the Project site, that is the proposed source of water 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. As of 2020, Liberty Utilities provides approximately 21,000 municipal connections (Liberty Utilities 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 which are separate from Liberty Utilities' potable water system.

Pursuant to the requirements of Senate Bill (SB) 610, a WSA was prepared for the Project (Appendix K), which included a comprehensive assessment of historical water demands and a projection of future water demands based on forecasted development of the remaining developable lands within the Town's water service area. The WSA noted that Liberty Utilities met 100% of its total water demands during the 2011 to 2015 drought and has a water shortage contingency plan in place for more severe drought conditions. Liberty Utilities has also reduced their pumping supply and made use of carry-overs, transfers, and replacement water agreements to meet demands. According to the 2020 Urban Water Management Plan (UWMP), Liberty Utilities has projected supply and demand estimates for normal, dry, and multiple dry water years and expects water supply to match demand for the next 20 years (Liberty Utilities 2021). The estimated annual demand of 92 acre-feet from the Project would likely not adversely affect the water supply for Liberty Utilities for the duration of the Project life (Appendix K).

Groundwater Quality

Groundwater quality within the Mojave Basin is characterized by a calcium bicarbonate character near the San Bernardino Mountains and the Mojave River channel. Sodium bicarbonate groundwater is present in the area of the Basin near Victorville (Appendix K). Sodium chloride groundwater is present in the area of the Basin near Apple Valley. Elevated nitrate concentrations occur in the southern portion of the Basin and elevated iron and manganese concentrations are found in the area of the Basin near Oro Grande. Groundwater has been contaminated with trichloroethane at the former George Air Force Base, now a Superfund site. Leaking underground storage tanks in and around Victorville have introduced fuel additives benzene, toluene, ethylbenzene, xylene, and methyl tertiary butyl ether (MTBE) into the groundwater basin (DWR 2004).

There are no groundwater quality issues present in groundwater delivered for potable use. The UWMP provides the following information regarding groundwater quality served by Liberty Utilities (Liberty Utilities 2021):

> Liberty Utilities currently obtains potable groundwater supplies from 20 active wells in the Mojave Basin Area. According to Liberty Utilities' annual Consumer Confidence Reports, potable groundwater quality within Liberty Utilities' service area currently meets all the regulatory requirements. There have been no contaminants detected that exceed any federal or state drinking water standards. Hundreds of samples analyzed every month and thousands every year by Liberty Utilities contract certified laboratories assure that all primary (health related) and secondary (aesthetic) drinking water standards are met. [...] Currently, water quality does not affect water supply reliability in the Liberty Utilities service area. Therefore, no anticipated change in reliability or supply due to water quality is anticipated based on the present data.

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. 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 vulnerable to inundation during a 100-year flood event. 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 Federal Emergency Management Agency (FEMA) flood-prone areas are relatively undeveloped, or in the case of Apple Valley Dry Lake, development is minimal. Both the Cordova Complex site and the Quarry at Pawnee site are located within Zone D, defined as "areas in which flood hazards are undetermined, but possible" (FEMA 2008; see Appendix I).

4.8.2 Regulatory Framework

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 the 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 Flood Insurance Rate Maps (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.

Section 303 of the Clean Water Act (Beneficial Uses and Total Maximum Daily Loads)

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.

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. The U.S. 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).

Water Quality Control Plan for the Lahontan Region

The Porter–Cologne Water Quality Control Act sets forth the obligations of the SWRCB and RWQCBs to adopt and periodically update water quality control plans (Basin Plans), in which beneficial uses and water quality objectives are established, and which include implementation programs and policies to achieve those objectives (California Water Code Sections 13240 through 13247). The Basin Plan is the basis for the Regional Board's regulatory program and sets forth water quality standards for the surface and ground waters of the Region. The Plan includes both designated beneficial uses of water and the narrative and numerical objectives which must be maintained or attained to protect those uses. The Basin Plan also identifies required or recommended control measures for any known impairments and in some cases, prohibits certain types of discharges in particular areas.

The Basin Plan implements a number of state and federal laws, the most important of which are the federal CWA (P.L. 92-500, as amended), and the state Porter–Cologne Water Quality Control Act (California Water Code § 13000 et seq.). Other pertinent federal laws include the Safe Drinking Water Act, Toxic Substances Control Act, Resource Conservation and Recovery Act, and Endangered Species Act, and the Comprehensive Response, Compensation, and Liability Act (CERCLA or "Superfund") and Superfund Amendment and Reauthorization Act (SARA).

Construction General Permit (SWRCB Order No. 2022-0057-DWQ)

For stormwater discharges associated with construction activity in the State of California, the SWRCB has adopted and administers the NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit Order WQ 2022-0057-DWQ) to avoid and minimize water quality impacts attributable to such activities. The Order will become effective September 1, 2023. The Construction General Permit applies to all projects in which construction activity disturbs 1 acre or more of soil. Construction activity subject to this permit includes clearing, grading, and disturbances to the ground, such as stockpiling and excavation. The Construction General Permit requires development and implementation of a SWPPP, which would specify water quality BMPs designed to reduce or eliminate pollutants in stormwater discharges and authorized non-stormwater discharges from the construction site. Routine inspection of all BMPs is required under the provisions of the Construction General Permit, and the SWPPP must be prepared and implemented by qualified individuals as defined by the SWRCB.

To receive coverage under the Construction General Permit, the project proponent must submit a Notice of Intent and permit registration documents to the SWRCB and applicable RWQCB. Permit registration documents include completing a construction site risk assessment to determine appropriate coverage level; detailed site maps showing

disturbance area, drainage area, and BMP types/locations; the SWPPP; and, where applicable, post-construction water balance calculations and active treatment systems design documentation.

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

Also 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.

California Toxics Rule

The U.S. 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 the Sustainable Groundwater Management Act (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. Adjudicated basins are exempt from the requirements to adopt a GSP.

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 five 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 five years for review and approval. The Project site is covered by the Liberty Utilities 2020 UWMP released in June 2021 (Liberty Utilities 2021).

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 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.

In accordance with state policy for water quality control, the Lahontan 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.

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 Stormwater 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 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 ground water quality.
B. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.
C. Substantially alter the existing drainage pattern of the site or area, including through alteration of the course of a stream or river or through the addition of impervious surface, 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; or
    IV. impede or redirect flood flows.
D. In flood hazards, 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 impacts related to hydrology and water quality.

Issues Not Further Discussed

As analyzed in the Initial Study for the Project (Appendix A), Threshold D was not carried forward for further analysis in this EIR. Largely based on Project location and FEMA flood mapping, there would be no impacts associated with seiche, tsunami, or flooding and this issue is not addressed below.

4.8.4 Impact Analysis

This section contains an evaluation of potential environmental impacts associated with the Project related to hydrology and water quality. The section describes the methods used in conducting the analysis and evaluates the Project-specific impacts and contribution to significant cumulative impacts, if any are identified.

Methodology

Potential impacts related to hydrology and water quality were identified based on consideration of the proposed Project characteristics, the location and characteristics of the Project site, and current applicable requirements and regulations. Specifically, the following analysis considers whether the Project would directly or indirectly cause hydrologic and water quality impacts taking into account state-mandated construction requirements, as specified in the NPDES Construction General Permit in addition to the other regulatory requirements. Impacts have been evaluated with respect to the thresholds of significance, as described above. In the event that adverse environmental impacts would occur even with consideration of applicable regulations and standard construction practices (see below), impacts would be potentially significant, and mitigation measures are provided to reduce impacts to less than significant.

Project Impacts

Threshold A: Would the Project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Short-Term Construction Impacts

Less-than-Significant Impact. Construction activities associated with preparation and development of the Project site would involve earthwork activities that disturb site soils and also involve the use of various hazardous materials common in construction (e.g., fuels, oils, paint, and solvents). Earthwork activities can expose soils, making them susceptible to the effects of wind and water erosion, and potentially result in off-site transport of sediments that 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 as a result the Project would be subject to NPDES Construction General Permit requirements. The Project Applicant 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 that could be incorporated into the SWPPP to protect water quality include 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

In addition, the Town 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 required 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. 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.

Incorporation of required 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, consistent with the State NPDES General Construction Permit and the Mojave River Watershed SWMP requirements. Compliance with existing 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 and following completion of construction would result in operation of two industrial warehouse buildings and associated improvements (the approximately 87-acre Cordova Complex site and 76-acre Quarry at Pawnee site). With construction of the two warehouse buildings and associated improvements (e.g., loading docks, truck and vehicle parking, landscaped areas, and pedestrian improvements), the introduction of these new impervious surfaces could contribute pollutants (e.g., petroleum fuel, oils, and trash) to stormwater runoff due to 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 existing drainages 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 SWMP 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 required Project-specific Preliminary Water Quality Management Plan for the Project has been prepared for each site and demonstrates how runoff from each site would be treated (Appendix J). At the Cordova Complex site, the Project would include installation of one proprietary underground infiltration/retention basin as well as three aboveground retention basins to treat stormwater flows collected on site (Appendix I). At the Quarry at Pawnee site, stormwater treatment would be provided by one large detention basin (Appendix I). These structural BMPs would be designed and constructed consistent with local drainage control requirements and would facilitate treatment through on-site infiltration (Appendix I). The Project would also include landscaped areas which can serve to capture increases in stormwater runoff. Together, the landscape areas and retention or detention basin would serve to meet the Design Capture Volume consistent with the Mojave River Watershed Technical Guidance Document for Water Quality Management Plans.

The Project site would also be designed and graded to mimic existing drainage patterns with gradients that remain towards the southwest corners of the two sites. In accordance with the San Bernardino County Hydrology Manual, the retention/detention basin systems 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 not more than 90% of the 100-year pre-development volume consistent with the Town's requirements. The combination of the landscaped areas and retention 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. According to the hydrologic analyses conducted for each site, post-development hydrologic conditions would provide detention/infiltration volumes that are below those that have been calculated for existing or pre-development hydrologic conditions as required (Appendix I).

Implementation of these LID 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), improper management of hazardous materials, and trash and debris, 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 located within the Upper Mojave River Valley Groundwater Basin. Currently, the Project site is undeveloped and pervious which allows for groundwater recharge. During construction activities and following completion of development of the Project site, the Project would result in a substantial increase in impermeable or impervious surfaces, which could impede groundwater recharge. However, as noted above, construction activities would incorporate BMPs which would limit the amount of off-site discharge, and once constructed, the Project would incorporate LID features, including retention/detention systems designed to retain 100% of the stormwater volume generated from up to a 10-year storm event and at least 90% of a 100-year storm event. 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 Mojave Basin. Therefore, impacts associated with groundwater recharge attributed to development of the site would be less than significant.

Groundwater Supply

Less-than-Significant Impact. Water supply for construction and operation of the Project would be provided by Liberty Utilities which sources all of 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 Basin. The Mojave Water Agency and other retail water purveyors use imported State Water Project water to replenish the Mojave 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 Basin.

According to estimations made in the WSA for the proposed Project, development of the two sites would result in an average water demand of 92 acre-feet per year (Appendix K)[1]. In the 2020 UWMP developed by Liberty Utilities, the water system reliability assessment factored in increased development within its jurisdiction and concluded that the future demands out to 2045 can be met under normal, single-dry-year, and multiple-dry-year scenarios (Liberty Utilities 2021). See also Section 4.13, Utilities and Service Systems.

Therefore, the 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.

[1] Water demand for construction activities, estimated to require 8-13 months, was not provided in the WSA and was determined to be an insubstantial amount due to the typical requirements of water required for construction as well as the temporary nature of construction activities.

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 discussed above, the Project site is undeveloped with no impervious surfaces. Construction of the Project would result in a substantial increase in 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 retention/detention 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 Stormwater 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 Stormwater 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 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. 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 on-site detention basins. The Project's proposed drainage system would be designed to provide 833,071 cubic feet of storage to meet the Town's requirements for post-development volumes of a 10-year, 24-hour storm event to be not more than 90% of the pre-development volume. The proposed infiltration systems and aboveground basins would ensure that the potential for flooding on or off site would be less than significant.

Project improvements would be required to be included in the Project's design plans for stormwater drainage system basins that are sized and designed to prevent flooding from a 10-year or 100-year storm event with a design retention/detention volume consistent with the Hydromodification Performance Criteria pursuant to the San Bernardino County Hydrology Manual. Therefore, because Project improvements would be designed to meet and exceed the stormwater requirements set forth in the San Bernardino County Hydrology Manual, the Project would not substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site. As a result, impacts associated with flooding on- or off-site would be less than significant.

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 Project's proposed drainage system would be designed to convey runoff in compliance with Apple Valley and the County of San Bernardino WQMP and SWMP requirements which include storm volume thresholds. With implementation of the retention/detention basins, infiltration on site, and stormwater storage, peak flows with the Project would be less than under the existing conditions (Appendix I). In addition, the Project would incorporate LID features, including on-site detention basins and ongoing maintenance requirements to ensure a continued successful operation. Collectively, these LID features would lower the potential for off-site transport of contaminants such as oil, grease, nutrients, heavy metals, and certain pesticides, including legacy pesticides. No other discharges would be associated with the proposed improvements. 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 FEMA Flood Map Service Center identifies the Project site as being within Zone D, which is classified as an area of undetermined flood hazard but still an area where flooding is possible (Appendix I). However, as previously discussed, although on-site drainage patterns would be altered as a result of Project development, the Project would maintain adequate stormwater conveyance and storage on each site in the retention/detention basins effectively not creating an increase in surface runoff that would result in flooding on or off site associated with a 10-year or 100-year storm event with volumes either fully captured within retention basins or 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 is 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 Project and sources its water from groundwater in the Alto Subarea of the Upper Mojave River Valley Groundwater Basin. Historical practices lead 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 2021). According to the 2020 UWMP, Liberty Utilities has been able to meet its demands even with decreasing supply and increasing population and need for water

supply including during recent severe drought occurrences. In addition, Victor Valley Wastewater Reclamation Authority has constructed facilities to increase recycled water supply facilities to increase water supply in the future. Therefore, based on past history and current planning efforts, the 2020 UWMP for Apple Valley determined that water demands for the Town including projected future growth such as the Project can be met in normal, single-dry-year, and multiple-dry-year scenarios (Liberty Utilities 2021). 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 impacts related to hydrology and water quality?

Hydrology, Water Quality, and Stormwater Runoff

Less than Cumulatively Considerable. The geographic context for the analysis of cumulative impacts associated with hydrology and water quality encompasses the Mojave River Watershed for surface water and the Upper Mojave River Valley Groundwater Basin for groundwater. Past, present, and reasonably foreseeable cumulative development in the watershed and groundwater basin would result in an increase in impervious surface area and add new sources of stormwater runoff that could adversely affect surface water or groundwater quality. Potential soil erosion from all cumulative project sites could combine to cause potentially significant cumulative water quality impacts due to sedimentation of downstream water bodies. Cumulative development could potentially result in short-term erosion related impacts during construction and long-term erosion related to denuded soil, improper drainage, and lack of erosion control features at each cumulative project site. Similarly, incidental spills of petroleum products and hazardous materials during construction at each cumulative project site could occur during construction, resulting in potentially significant cumulative water quality impacts.

However, short-term and long-term erosion BMPs and spill control BMPs would be employed at each site consistent with NPDES stormwater quality regulations, including the Construction General Permit and MS4 permits, as applicable. 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 Project. For example, Part 1, Section I of the MS4 Phase II NPDES Permit requires the Town 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 two 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 its local jurisdictions 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 project designers and/or contractors 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 Mojave River Watershed and ensure that BMPs and LID

designs minimize potential water quality concerns to the maximum extent practicable. Therefore, impacts associated with water quality standards, stormwater control, and polluted runoff in the watersheds would be minimized. As such, the Project's contribution to potentially significant cumulative impacts associated with water quality and stormwater runoff would be less than cumulatively considerable.

Groundwater Supplies

Less than Cumulatively Considerable. The geographic context for the analysis of cumulative impacts associated with groundwater resources encompasses the Upper Mojave River Valley Groundwater Basin. Cumulative development would result in an increase in water demand, which could have potentially significant cumulative impacts on groundwater resources in the Basin, including a reduction in the amount of potable groundwater in storage. Cumulative projects would be required to comply with regulations regarding water supply, including preparation of WSAs pursuant to SB 610 as applicable, prior to being approved by the Town. Regarding groundwater supplies, the above analysis for the Project considers the basin as a whole and Liberty Utilities is managing the basin based on cumulative growth projections. Therefore, since the 2020 UWMP for Apple Valley determined that water demands for the Town can be met in normal, single-dry-year, and multiple-dry-year scenarios combined with the adjudicated management of the basin as a whole. Therefore, the Project's contribution to potentially significant cumulative groundwater impacts would be less than cumulatively considerable.

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 a less-than-significant impact related to 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 a less-than-significant impact related 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 a less-than-significant impact related to erosion and siltation off site. No mitigation is required.
>
> ***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 a less-than-significant impact with regard to increasing the rate or amount of surface runoff in a manner which 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 a less-than-significant impact 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 a less-than-significant impact 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 a less-than-significant impact related to conflicts with or obstruction of 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 impacts related to hydrology and water quality?

The Project, in combination with past, present, and reasonably foreseeable future development, would result in potentially significant cumulative impacts related to hydrology and water quality. However, the Project's contribution would be less than cumulatively considerable. No mitigation is required.

4.8.6 References

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4.9 Land Use and Planning

This section describes existing conditions related to land use and planning, identifies associated regulatory requirements, evaluates potential project and cumulative impacts, and identifies mitigation measures for any significant or potentially significant impacts related to implementation of the Cordova Complex and Quarry at Pawnee Warehouse Project (Project).

No comments regarding land use and planning were received during the scoping period for this environmental impact report (EIR). All scoping comment letters received are provided in Appendix A.

This analysis is based on a review of relevant land use plans, policies, and regulations.

4.9.1 Existing Conditions

The approximately 163-acre Project site is located in the Town of Apple Valley (Apple Valley or Town), which is an incorporated town within San Bernardino County. The Project site includes two noncontiguous sites; the approximately 87-acre Cordova Complex site is comprised of 10 parcels (Assessor's Parcel Numbers [APNs] 0463-213-05, 06, 07, 08, 09, 16, 33, 34, 35, and 36) and the approximately 76-acre Quarry at Pawnee site is comprised of four parcels (APNs 0463-214-06, 07, 08, and 09), as shown on Figure 3-2 in Chapter 3, Project Description. The Project site is undeveloped desert landscape, with scattered low-lying shrubs, a few Joshua trees (*Yucca brevifolia*), and several small, unvegetated ephemeral drainages.

The Project site is surrounded primarily by undeveloped land, with scattered residential, commercial, and industrial uses located to the north, south, east, and southwest. One rural residence is located adjacent to the southwestern corner of the Cordova Complex site, and one rural residence is located directly east of the Quarry at Pawnee site, east of Flint Road. Additional scattered rural residences are located farther to the north and northwest of the Project site. Commercial and industrial land uses in the Project site vicinity are located to the south and include a Walmart Distribution Center, Victor Valley College Regional Public Safety Training Center, Fresenius Medical Care Distribution Center, and Big Lots Distribution Center, The Rocks Paintball Spot, and Apple Valley Airport.

The Project site is within the North Apple Valley Industrial Specific Plan (NAVISP) and the site and surrounding area are designated for Specific Plan Industrial (I-SP) and General Industrial (I-G) land uses. The Project site is designated I-SP in the NAVISP and Specific Plan (SP) in the Town's General Plan and is also zoned as SP (Town of Apple Valley 2009a, 2012, 2022). Surrounding land use designations are also I-SP to the north, west, and south, and I-G to the east of the Quarry at Pawnee site across Flint Road.

The I-SP land use designation allows for a broad range of clean manufacturing and warehousing uses, ranging from furniture manufacture to warehouse distribution facilities. Appropriate land uses in this designation include manufacturing facilities with showrooms and offices, regional warehousing facilities, and support services for manufacturing and warehousing. In the I-SP designation, all uses must be conducted within enclosed buildings and outdoor storage must be completely screened from view. The I-G land use designation allows for more intense manufacturing uses, including cement batch plants, welding shops, and vehicle dismantling, in addition to land uses permitted in the I-SP designation. In the I-G designation, outdoor manufacturing and outdoor storage are both permitted with appropriate approvals (Town of Apple Valley 2012).

4.9.2 Regulatory Framework

Federal

There are no federal regulations pertaining to land use and planning that would apply to 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.

Regional

Regional Transportation Plan/Sustainable Communities Strategy

The 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. 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 goals of Connect SoCal fall into four core categories: economy, mobility, environment, and healthy/complete communities. 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. The following RTP/SCS goals are applicable to the Project:

1. Encourage regional economic prosperity and global competitiveness.
2. Improve mobility, accessibility, reliability, and travel safety for people and goods.
3. Enhance the preservation, security, and resilience of the regional transportation system.
4. Increase person and goods movement and travel choices within the transportation system.

5. Reduce greenhouse gas (GHG) emissions and improve air quality.
6. Support healthy and equitable communities.
7. Adapt to a changing climate and support an integrated regional development pattern and transportation network.
8. Leverage new transportation technologies and data-driven solutions that result in more efficient travel.
9. Encourage development of diverse housing types in areas that are supported by multiple transportation options.
10. Promote conservation of natural and agricultural lands and restoration of habitats.

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 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 2009a). The following goals, policies, and programs contained within the General Plan Land Use Element are applicable to the Project:

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.

Program 1.A.2. Development proposals shall be subject to the requirements of the Town's Native Plant Protection Ordinance.

Policy 1.B. New development shall be designed to minimize grading, and avoid mass grading to the greatest extent possible.

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

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.

Policy 2.C. The Town shall require quality design in all development and redevelopment proposals and shall encourage the enhancement of existing development.

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.

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.

Program 7.A.1. Industrial development projects will be required to extend adequate infrastructure, utilities, and public services prior to occupancy.

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.

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.

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 use through various zoning designations. It is intended to assure orderly and beneficial development, reduce potential hazards, and maintain the Town's distinctive character. 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. As the Project site is within the SP zoning district, the development standards of the NAVISP supersede those in the Development Code, unless the NAVISP does not provide a specific standard. The NAVISP development standards that are applicable to the Project are described below and shown in Table 4.9-1.

North Apple Valley Industrial Specific Plan

The NAVISP is a tool for implementing the goals of the Town's General Plan related to the 6,221-acre area that includes and surrounds the Apple Valley Airport. Chapter III, Development Standards and Guidelines, of the NAVISP (Town of Apple Valley 2012) serves as the NAVISP's Development Code. The Project site is located within the I-SP Land Use District, which allows for a broad range of clean manufacturing and warehousing uses, ranging from furniture manufacture to warehouse distribution facilities. The NAVISP establishes development standards and guidelines and provides the zoning ordinance for the Specific Plan area. Where a development standard is different in the Development Code than in the Specific Plan, the provisions in the Specific Plan shall apply. Where a standard is not provided in the Specific Plan, the standards of the Development Code shall apply. The NAVISP has a unique Stie Plan Review permit process that allows for administrative review and approval of projects that propose permitted uses and conform to the requirements and development standards of the NAVISP.

Table 4.9-1. Applicable NAVISP Development Standards

Development Standard	Specific Plan Industrial Land Use District
Minimum Lot Size	2 acres
Minimum Lot Width	100 feet
Minimum Lot Depth	100 feet
Minimum Front Setback or Street Side Setback	▪ Landscaping: 15 feet ▪ Building: 25 feet
Minimum Building Rear Setback	15 feet
Minimum Building Interior Side Yard Setback	0 feet
Maximum Building Coverage (%)	45%
Maximum Height Outside Airport Influence Area	50 feet
Minimum Landscape Requirement	5% of interior parking surface area
Minimum Parking Requirement (Warehouse Uses)	1 space per 500 sf of gfa for the first 10,000 sf and beyond that, 1 space per 1,000 sf of gfa (per Section 9.72 of the Development Code)

Source: Town of Apple Valley 2012.
Note: gfa = gross floor area; NAVISP = North Apple Valley Industrial Specific Plan; sf = square feet.

4.9.3 Thresholds of Significance

The significance criteria used to evaluate Project impacts related to land use and planning are based on Appendix G of the California Environmental Quality Act (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:

A. Physically divide an established community.
B. Conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.
C. Result in cumulatively considerable impacts related to land use and planning.

Issues Not Further Discussed

As analyzed in the Initial Study (Appendix A), the Project would have no impact on the physical division of an established community (under Threshold A). As discussed in Appendix A, the Project site consists of land that is undeveloped and is surrounded by undeveloped land; therefore, there is no connection between any established communities. Thus, this issue is not further analyzed in this section. See Appendix A for further details.

4.9.4 Impact Analysis

This section contains an evaluation of potential environmental impacts associated with the Project related to land use and planning. The section describes the methods used in conducting the analysis and evaluates the Project's impacts and contribution to significant cumulative impacts, if any are identified.

Methodology

The methodology applied to assess and evaluate impacts related to land use and planning is based on information obtained from review of existing and proposed land uses and development on the Project site, review of existing surrounding land uses and development, and review of the Project's potential for conflicts with the relevant portions of the following plans, policies, and regulations:

- Southern California Association of Government's Regional Transportation Plan/Sustainable Communities Plan (RTP/SCS; Connect SoCal)
- North Apple Valley Industrial Specific Plan
- Town of Apple Valley General Plan
- Town of Apple Valley Development Code

The Project's potential to conflict with other plans, including the Mojave Desert Air Quality Management District air quality plans is analyzed in Section 4.2, Air Quality, and the Project's potential to conflict with the San Bernardino County Congestion Management Plan is analyzed in Section 4.11, Transportation.

The CEQA Guidelines, Section 15125(d) (found in 14 California Code of Regulations 15000 et seq.), states that an EIR must discuss "any inconsistencies between the proposed project and applicable general plans, specific plans, and regional plans." An inconsistency with a general plan or policy would not necessarily create an environmental impact. For example, certain general plan policies are intended to address housing availability, socioeconomics, or employment; impacts related to these topics are not considered impacts to the environment under CEQA. Economic or social effects are not considered significant effects on the environment unless the social and/or economic changes are connected to physical environmental effects. Therefore, the significance determination for Threshold B below is informed only by the Project's potential to conflict with plans and policies adopted for the purpose of avoiding or mitigating an environmental effect pursuant to the thresholds of significance (plans and policies that address environmental effects, but that do not guide land use decisions, are discussed in the applicable technical sections in Chapter 4 of this EIR. However, a consistency analysis of applicable policies is also included in Table 4.9-2). Therefore, in accordance with CEQA Guidelines Section 15125(d), a brief discussion of the project's overall consistency with land use plans and policies not adopted to avoid or mitigate environmental effects is included below.

Ultimately, the determination of the Project's consistency with the Town's General Plan would be made by the Town Council. The information provided in this section is meant to inform that decision. In addition, the Courts have recognized that, because general plans often contain numerous policies adopted to effect differing or competing legislative goals, a development project may be "consistent" with a general plan, taken as a whole, even though the project appears to be inconsistent or arguably inconsistent with some specific policies within a given general plan (*Sequoyah Hills Homeowners Association v. City of Oakland* (1993) 23 Cal.App.4th 704, 719). Furthermore, Courts strive to "reconcile" or "harmonize" seemingly disparate general plan policies to the extent reasonably possible (*No Oil*, *supra*, 196 Cal.App.3d at p. 244). The ultimate determination of General Plan consistency for a proposed project often turns on whether the project is consistent with policies that are fundamental, mandatory, and specific. (*Families Unafraid to Uphold Rural El Dorado County v. El Dorado County Bd. of Supervisors* (1998) 62 Cal.App.4th 1332, 1341-1342.)

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. This discussion focuses on land use plans, policies, and regulations relevant to the Project that relate to avoiding or mitigating environmental effects, and whether any potential conflicts could create a significant physical impact on the environment. As demonstrated in the analysis below, 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.

Regional Transportation Plan/Sustainable Communities Strategy

The 2020-2045 RTP/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 establishes 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).

Table 4.9-2 provides an analysis of the Project's potential to conflict with applicable goals of the RTP/SCS.

Table 4.9-2. Analysis of Potential for Project to Conflict with 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy Goals

Goal	Potential for Project to Conflict
1. Encourage regional economic prosperity and global competitiveness.	**No Conflict.** The Project would involve construction and operation of two industrial warehouse buildings, which would generate jobs and tax revenue for the Town and its residents. The Project would generate short-term construction jobs during the approximately 18-month construction period. Once operational, the Project would add to the Town's business tax base and would employ approximately 1,469 workers, helping the Town better meet its jobs/housing balance.
2. Improve mobility, accessibility, reliability, and travel safety for people and goods.	**No Conflict.** The Project would include construction and operation of two industrial warehouse buildings that would be efficiently accessible to Interstate 15 (I-15), which would help to facilitate regional goods movement throughout Southern California.
3. Enhance the preservation, security, and resilience of the regional transportation system.	**No Conflict.** A traffic impact analysis was 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 would be implemented as part of the Project (and would be made a condition of Project approval), 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 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 identified in the Town's General Plan Circulation Element. The Project Applicant would be subject to the Town's Development Impact Fee program and would pay the requisite fees at the rates in effect at the time.

Table 4.9-2. Analysis of Potential for Project to Conflict with 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy Goals

Goal	Potential for Project to Conflict
4. Increase person and goods movement and travel choices within the transportation system.	**No Conflict.** The Project would include construction and operation of two industrial warehouse buildings that would be accessible to I-15, which would help to facilitate regional goods movement throughout Southern California.
5. Reduce greenhouse gas (GHG) emissions and improve air quality.	**No Conflict.** The Project would involve development of an industrial use that would inherently involve emissions of GHGs, criteria air pollutants, and other contaminants. However, as detailed in Section 4.2, Air Quality, and Section 4.6, Greenhouse Gas Emissions, the Project would incorporate all feasible mitigation measures to reduce impacts related to air quality and GHG emissions. In addition, according to SCAG's Comprehensive Regional Goods Movement Plan and Implementation Strategy, the region is projected to run out of suitably zoned vacant land designated for warehouse facilities in or around 2028 (SCAG 2010, 2013). Thus, the Project would help meet the growing demand for warehouse space and would do so in an area that is proximate to regional highways (i.e., I-15), thereby reducing the need for longer-distance trips that could result in greater air pollutant and GHG emissions. Additionally, the Project would employ approximately 1,469 workers, helping the Town improve its jobs/housing balance, which would shorten commute distances of Town residents who choose to work on the Project site, thereby having a direct positive effect on GHG and air pollutant emissions.
6. Support healthy and equitable communities.	**No Conflict.** The Project would involve development of an industrial use that would inherently involve the emissions of GHGs, criteria air pollutants, and other contaminants. However, as detailed in Section 4.2, Air Quality, and Section 4.6, Greenhouse Gas Emissions, the Project would incorporate all feasible mitigation measures to reduce impacts related to air quality and GHG emissions. The Project is located within the NAVISP, in an area envisioned for industrial development and not located near many sensitive receptors or vacant property zoned for the development of future potential sensitive receptors (i.e., residences, day cares, senior facilities). As discussed above under Goal 4, the region is projected to run out of suitably zoned vacant land designated for warehouse facilities in or around 2028 (SCAG 2010, 2013). Thus, the Project would help meet the growing demand for warehouse space and would do so in an area that is proximate to regional highways (i.e., I-15), thereby reducing the need for longer-distance trips that could result in greater air pollutant and GHG emissions. Additionally, the location of the Project site would provide nearby access to I-15, thereby eliminating the need for truck traffic to take longer routes through residential areas. As described in Chapter 3, Project Description, the Project would include a number of Project Design Features (PDFs) that are intended to reduce energy use, such as incorporating energy efficiency design features in compliance with the California Green Building Standards and Leadership in Energy and Environmental Design Silver certification (see Section 3.4.2, Sustainability Features and Project Design Features, in Chapter 3, Project Description, for a complete list). The Project would also employ approximately 1,469 workers, helping the Town improve its jobs/housing balance, which would have a direct positive effect on GHG and air pollutant emissions. Thus, the Project would not impede attainment of this goal.

Table 4.9-2. Analysis of Potential for Project to Conflict with 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy Goals

Goal	Potential for Project to Conflict
7. Adapt to a changing climate and support an integrated regional development pattern and transportation network.	**No Conflict.** The Project would involve development of an industrial use that would inherently involve the emissions of GHGs, criteria air pollutants, and other contaminants. However, as detailed in Section 4.2, Air Quality, and Section 4.6, Greenhouse Gas Emissions, the Project would incorporate all feasible mitigation measures to reduce impacts related to air quality and GHG emissions. As discussed above under Goal 4, the region is projected to run out of suitably zoned vacant land designated for warehouse facilities in or around 2028 (SCAG 2010, 2013). Thus, the Project would help meet the growing demand for warehouse space and would do so in an area that is proximate to regional highways (i.e., I-15), thereby reducing the need for longer-distance trips that could result in relatively greater GHG emissions.
8. Leverage new transportation technologies and data-driven solutions that result in more efficient travel.	**No Conflict.** The Project includes a number of PDFs (see Chapter 3, Project Description) to reduce the consumption of energy for transportation. These include the use of zero-emission equipment; all haul trucks required to meet the California Air Resources Board (CARB) model year 2010 (or newer) engine emission standards and requires compliance with all current air quality regulations for on-road trucks including CARB's Heavy-Duty (Tractor-Trailer) Greenhouse Gas Regulation; limits on truck idling time and preparation of an efficient truck routing plan for construction vehicles. In addition, the Project includes electric vehicle charging stations for on-site for employees, consistent with Title 24. This includes the potential installation of electric vehicle charging stations for trucks. The Project would not hinder the advancement of autonomous vehicles or intelligent transportation that may be developed and implemented in the future.
9. Encourage development of diverse housing types in areas that are supported by multiple transportation options.	**No Conflict.** The Project site is not zoned for housing, but rather is designated for an industrial land use, I-SP, within the NAVISP. Thus, the Project does not include housing.
10. Promote conservation of natural and agricultural lands and restoration of habitats.	**No Conflict.** The Project would be located in an area designated for industrial land uses within the NAVISP. The Project site does not currently support agriculture. The Project site does support suitable habitat for sensitive plant and wildlife species. As detailed in Section 4.3, Biological Resources, mitigation measures have been included in this EIR to address potentially significant impacts to suitable on-site habitat and sensitive plant and wildlife species.

Town of Apple Valley General Plan

The Apple Valley General Plan includes goals and policies relevant to the Project. Table 4.9-3 provides an analysis of the Project's potential to conflict with specific policies and programs of the General Plan.

Table 4.9-3. Analysis of the Project's Potential to Conflict with the Town of Apple Valley General Plan

Policy/Program	Potential for Project to Conflict
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.	**No Conflict.** The Project's landscape plan would include landscaped areas totaling approximately 1,221,665 square feet. The Project's landscaping plan, which is required to be reviewed by the Town for compliance with Town policies, 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 prepared for the Project (Appendix K).
Program 1.A.2. Development proposals shall be subject to the requirements of the Town's Native Plant Protection Ordinance.	**No Conflict.** The Project site contains plants that are protected by the Town's Plant Protection and Management Policy (Municipal Code Chapter 9.76), including 14 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).
Policy 1.B. New development shall be designed to minimize grading, and avoid mass grading to the greatest extent possible.	**No Conflict.** The Project's grading plan would be reviewed by the Town to ensure excessive grading is not proposed. Furthermore, earthwork materials across the two sites would be balanced during the grading phase, with cut from the Quarry at Pawnee site being used as fill on the Cordova Complex site.
Policy 1.D. Areas of biological or aesthetic significance shall be protected from development.	**No Conflict.** 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 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 EIR includes mitigation measures to address potential Project impacts on special-status species and jurisdictional waters.
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, including domestic water and sanitary sewer, which would connect to the Town's existing utility infrastructure near the Project site. The Project would also include off-site roadway improvements to facilitate adequate access to the site as well as on-site circulation, sufficient site access for both passenger vehicles and trucks, and ensure efficient off-site circulation on nearby roadway facilities. 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 that 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.

Table 4.9-3. Analysis of the Project's Potential to Conflict with the Town of Apple Valley General Plan

Policy/Program	Potential for Project to Conflict
Policy 2.C. The Town shall require quality design in all development and redevelopment proposals and shall encourage the enhancement of existing development.	**No Conflict.** The design of the proposed warehouse buildings is required to be reviewed by Town staff for compatibility with the community. Title 9 of the Development Code and Chapter III of the NAVISP provides in-depth information regarding design standards and guidelines for industrial development. In accordance with the Development Code and NAVISP design guidelines, 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.
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.	**No Conflict.** The Project site is designated for industrial uses, per the NAVISP. The Project vicinity contains scattered rural residences, including some directly adjacent to or across the street from the Project site. As demonstrated in Table 4.1 2 in Section 4.1, Aesthetics, the Project would comply with the applicable development standards contained in the NAVISP for the SP I land use district, 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 reduces the potential for potential conflicts due to noise, lights, odors, etc.
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.	**No Conflict.** As indicated above, the Project is located in an area designated for industrial 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 (see Appendix A), the Project would be subject to payment of all the Town's applicable Development Impact Fees related to public services.
Program 7.A.1. Industrial development projects will be required to extend adequate infrastructure, utilities, and public services prior to occupancy.	**No Conflict.** 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.
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.	**No Conflict.** As described in the Initial Study (Appendix A), the Project would not induce substantial population growth and is 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, schools, and storm drainage facilities, among others.

Table 4.9-3. Analysis of the Project's Potential to Conflict with the Town of Apple Valley General Plan

Policy/Program	Potential for Project to Conflict
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.	**No Conflict.** 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.
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.	**No Conflict.** The Project site is located in a minimally developed 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., curb and gutter) along all Project frontages, including Cordova Road, Quarry Road, Dachshund Avenue, and Navajo Road, which are classified as Secondary Roads per Exhibit II-6 of the Circulation Element.
Policy 1.D. Traffic calming devices shall be integrated into all Town streets to the greatest extent possible.	**No Conflict.** 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 state and local roadway standards and practices. The Project would include construction roadway improvements, as shown on Figure 3-7, in Chapter 3, Project Description to facilitate adequate on-site circulation, sufficient site access for both passenger vehicles and trucks, and efficient off-site circulation on nearby roadways. 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 Town and their qualified traffic engineers. This approach would ensure compliance with all applicable roadway design requirements.
Policy 1.F. Local streets shall be scaled to encourage neighborhood interaction, pedestrian safety and reduced speeds.	**No Conflict.** The Project site is located in a rural area of the Town, with limited pedestrian and bicycle facilities provided. Where new development has occurred, sidewalks have typically been constructed along site frontages (e.g., Victor Valley Community College located near the southwest corner of Navajo Road and Johnson Road). The Project would include construction of pedestrian facilities (e.g., sidewalks, curb and gutter) along all Project frontages, including Cordova Road, Dachshund Avenue, and Navajo Road.
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.	**No Conflict.** The Project would be required to pay all applicable Development Impact Fees to the Town, which include fees which fund street improvements and public infrastructure. The Project applicant will pay their fair share for the improvement of streets that surround their project. Also, as discussed under Policy 1.C, the Project includes the construction of off-site improvements including roadway and pedestrian improvements.

Table 4.9-3. Analysis of the Project's Potential to Conflict with the Town of Apple Valley General Plan

Policy/Program	Potential for Project to Conflict
Program 1.H.1. The Town shall require the payment of developer impact fees as appropriate.	**No Conflict.** The Project applicant will pay all required fees in compliance with the Town's Development Impact Fees.
Policy 1.I. Pedestrian access shall be preserved and enhanced.	**No Conflict.** As discussed under Policy 1.C, the Project includes the construction of pedestrian facilities (e.g., curb and gutter) along all Project frontages, including Cordova Road, Quarry Road, Dachshund Avenue, and Navajo Road. These frontages currently do not have pedestrian facilities; therefore, access would be enhanced.
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.	**No Conflict.** The Project site is located in a rural area of the Town, with limited pedestrian and bicycle facilities provided. Where new development has occurred, sidewalks have typically been constructed along site frontages (e.g., Victor Valley Community College located near the southwest corner of the Navajo Road and Johnson Road). The Project would include construction of pedestrian facilities (e.g., sidewalk, curb and gutter) along all Project frontages, including Cordova Road, Dachshund Avenue, and Navajo Road. The Project would include on-site lighting throughout the site, including pole-mounted parking lot lights and 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.
Program 1.J.1. New development proposals shall be required to construct bicycle lanes consistent with this Element in conjunction with off-site improvements.	**No Conflict.** Exhibit II-10 of the Circulation Element illustrates a network of bicycle lanes/paths planned by the Town. There are no planned lanes or paths within this exhibit on roads adjacent to the Project site. This area is designated for industrial development under the NAVISP; the NAVISP states that the plan is designed as an industrial park, therefore priority to have bike paths is lower than it would be for a residential or open space area. Therefore, the Project would not be required to construction bicycle lanes.
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 drought-tolerant, low water consuming landscaping, intelligent irrigation controllers, and other water-conserving strategies and technologies in irrigated areas.	**No Conflict.** As previously discussed, the Project includes a landscaping plan, which has been reviewed by the Town for compliance with Town policies, 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 and the Water Supply Assessment prepared for the Project (Appendix K).
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.	**No Conflict.** As previously discussed, the Project's proposed landscaping plan, includes plantings that are drought-tolerant, native species and would be low-water-use plantings that would be watered using drip irrigation consistent with this policy.

Table 4.9-3. Analysis of the Project's Potential to Conflict with the Town of Apple Valley General Plan

Policy/Program	Potential for Project to Conflict
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.	**No Conflict.** See response to Policy 1.A of the Land Use Element.
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.	**No Conflict.** 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.
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.	**No Conflict.** The Project would include connections to the Town's sanitary sewer infrastructure.
Program 1.F.1. Require that the development and maintenance of project-specific on-site stormwater retention/detention basins implements the NPDES program, enhances groundwater recharge, complements regional flood control facilities, and addresses applicable community design policies subject to all applicable regulations, standards, and guidelines.	**No Conflict.** See response to Policy 1.F of the Water Resources Element, above. In addition, Project design, construction, and operation of the components described above would be completed in accordance with the National Pollutant Discharge Elimination System (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. Also, on the Cordova Complex site, an underground storage basin would be constructed beneath the parking lot on the northern edge of the site, and three aboveground detention basins would be located along the southwestern portion of the site, providing a total volume of 833,071 cubic feet of storage and infiltration. On the Quarry at Pawnee site, one aboveground detention basin would be constructed along the southern edge of the site, providing a total volume of 290,011 cubic feet of storage and infiltration. 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 not more than 90% of the 100-year volume consistent with the Town's requirements. These improvements would be designed and constructed consistent with local drainage control requirements and would facilitate treatment through on-site filtration; according to the hydrologic analyses conducted for each site, post-development hydrologic conditions would provide detention/infiltration volumes that are below those that have been calculated for existing or pre-

Table 4.9-3. Analysis of the Project's Potential to Conflict with the Town of Apple Valley General Plan

Policy/Program	Potential for Project to Conflict
	development hydrologic conditions as required (see Appendix I). The Project would also include landscaped areas which would serve to capture increases in stormwater runoff.
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.	**No Conflict.** 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 concluded adequate water would be available to serve the Project. Liberty Utilities reviewed the WSA and concurred with the findings.
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.	**No Conflict.** 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. Also, as discussed in Section 4.5, Energy, the Project would implement PDF-DES-5 which would require all fixtures installed in restrooms and employee break areas be EPA WaterSense certified or equivalent.
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.	**No Conflict.** 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.
Policy 2.C. The Town will encourage the planting and preservation of native species of trees and plants to enhance the environment.	**No Conflict.** The Project would include plantings that are drought-tolerant, native species and would be low-water-use plantings that would be watered using drip irrigation, as described in the Water Supply Assessment prepared for the Project (Appendix K) 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.

Table 4.9-3. Analysis of the Project's Potential to Conflict with the Town of Apple Valley General Plan

Policy/Program	Potential for Project to Conflict
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.	**No Conflict.** As described in Section 3.4, 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 3.4) to protect such resources in the event of inadvertent discovery of yet unknown resources during Project construction.
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.	**No Conflict.** As analyzed in the Initial Study (Appendix A), the Project would have a less-than-significant impact on historical resources because the Project site does not include any historical resources listed or eligible for listing in the California Register of Historic 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, as discussed in Section 4.4 Cultural, Tribal Cultural, and Paleontological Resources, 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 identified mitigation measures (see MM CUL 1 through MM CUL 3 in Section 3.4) 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.	**No Conflict.** As described in Section 4.3, Biological Resources, the Project site does not contain any federally designated or proposed critical habitat for endangered, threatened, or sensitive plant or wildlife species.
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.	**No Conflict.** A Biological Technical Report (Appendix D) 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.
Policy 1.B. The Town shall promote the use of native vegetation for landscaping to enhance and create viable habitat for local species.	**No Conflict.** See response to Policy 1.A of the Land Use Element.

Table 4.9-3. Analysis of the Project's Potential to Conflict with the Town of Apple Valley General Plan

Policy/Program	Potential for Project to Conflict
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.	**No Conflict.** 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.
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.	**No Conflict.** See responses above under Policy 1.B and Program 1.B.1 of the Biological Resources Element.
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.	**No Conflict.** Cultural Resource Assessments were performed for the Project (Appendix E) 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 3.4, 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.
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.	**No Conflict.** 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 3.4) to protect such resources in the event of inadvertent discovery of yet unknown resources during Project construction.
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.	**No Conflict.** As discussed in Section 4.2, Air Quality, the Project would implement a rigorous suite of 26 PDFs related to construction, operation, and design of the Project to reduce potential local and regional air quality impacts. Through implementation of these PDFs, Project construction-source emissions would not exceed applicable regional air quality thresholds. However, even with the implementation of operational and design PDFs Project operational-source air pollutant emissions would result in exceedances of regional thresholds for emissions of NO_x and PM_{10}, primarily associated with mobile source vehicles (about 99.9% of NO_x and PM_{10}), even after implementation of PDFs. No additional feasible mitigation measures or PDFs have been identified that could reduce operational emissions to below the regional thresholds for

Table 4.9-3. Analysis of the Project's Potential to Conflict with the Town of Apple Valley General Plan

Policy/Program	Potential for Project to Conflict
	NO_x and PM_{10}. To ensure that these PDFs are implemented during construction and operation, they will be tracked within the Project's Mitigation Monitoring and Reporting Program.
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 mitigation measures and set forth additional measures as needed.	**No Conflict.** See response to Policy 1.D of the Air Quality Element. Section 4.2, Air Quality, of this EIR contains detailed air quality analysis that is in part based on air quality modeling and a health risk assessment conducted by Dudek (Appendix B-1 and Appendix B-2). The Project would be required to implement air quality related PDFs related to construction, operation, and design of the Project. These PDFs would be reviewed by Town staff prior to the issuance of grading or demolition permits.
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.	**No Conflict.** As discussed in Section 4.5, Energy, the Project would implement PDFs to reduce the consumption of energy for transportation, heating and cooling, and construction. These the use of zero-emission equipment; all haul trucks required to meet CARB model year 2010 (or newer) engine emission standards be used and requires compliance with all current air quality regulations for on-road trucks including CARB's Heavy-Duty (Tractor-Trailer) Greenhouse Gas Regulation; limits on truck idling time and establish an efficient truck routing plan. In addition, the Project includes electric vehicle charging stations for on-site for employees, consistent with Title 24. This includes the potential installation of truck electric vehicle charging stations.
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.	**No Conflict.** The Project would employ approximately 1,469 workers, which would help the Town improve its balance of employment and housing opportunities and minimize VMT. Furthermore, the Project would implement PDF-OP-6 which would establish a Transportation Demand Management (TDM) Plan aimed to reduce employee commute vehicle emissions and discourage single-occupancy vehicle trips; it would encourage alternative modes of transportation such as carpooling, taking transit, walking, and biking.
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.	**No Conflict.** The Project would implement measures 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.

Table 4.9-3. Analysis of the Project's Potential to Conflict with the Town of Apple Valley General Plan

Policy/Program	Potential for Project to Conflict
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.	**No Conflict.** The Project is required by state law to comply with Title 24 (CALGreen) building standards. Furthermore, the Project would be designed to achieve LEED Silver certification.
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.	**No Conflict.** See response to Program 1.F.1 of the Air Quality Element. The Project would implement PDF-OP-6 which would establish a TDM aimed to reduce employee commute vehicle emissions and discourage single-occupancy vehicle trips; it would encourage alternative modes of transportation such as carpooling, taking transit, walking, and biking.
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.	**No Conflict.** The Project includes two warehouse buildings that would each include a 100-kilowatt (kW) solar system with a 50-kW battery backup, consistent with this policy.
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.	**No Conflict.** See responses to Policy 1.E and Policy 1.G of the Energy and Air Quality Element, above. The Project would reduce the consumption of energy for transportation during construction by requiring cleaner and/or alternative energy off-road equipment (PDF-CON-1 and PDF-CON-2), idling restrictions (PDF-CON-3), haul truck requirements for newer model years (PDF-CON-4). During operation, the Project would implement PDFs that would further reduce transportation energy demand, including EV charging stations for passenger vehicles and heavy-duty trucks, cleaner truck fleet, and anti-idling restrictions. The Project would also be required by state law to comply with CALGreen building standards and is designed to achieve LEED Silver certification which includes energy saving measures.
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.	**No Conflict.** The Project includes two warehouse buildings that would each include a 100-kilowatt (kW) solar system with a 50-kW battery backup. The Project also includes electric vehicle charging stations be installed on-site for employees, consistent with Title 24. This includes the potential installation of truck electric vehicle charging stations.

Table 4.9-3. Analysis of the Project's Potential to Conflict with the Town of Apple Valley General Plan

Policy/Program	Potential for Project to Conflict
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.	**No Conflict.** See response to Policy 1.B of the Energy and Mineral Resources Element.
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 should also be encouraged. The Town shall support the installation of solar panels on carports and over parking areas where appropriate.	**No Conflict.** The Project includes measures 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.
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.	**No Conflict.** The Project would comply with Section 5.408.1 of the CALGreen Code Part 11, that requires a minimum of 65% of the nonhazardous construction and demolition waste be recycled and/or salvaged for reuse, consistent with this policy.
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.	**No Conflict.** As discussed in the Initial Study, Appendix A, the Project sites do not contain any unique rock outcroppings.
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.	**No Conflict.** As discussed in the Initial Study, Appendix A, according to Exhibit III-11 of the Town's General Plan EIR (Town of Apple Valley 2009b), the Project sites are not located in an area identified as susceptible to slope instability, liquefaction, or other geotechnical hazards. The Project sites are relatively flat and are not located adjacent to any potentially unstable topographical feature such as a hillside or riverbank.

Table 4.9-3. Analysis of the Project's Potential to Conflict with the Town of Apple Valley General Plan

Policy/Program	Potential for Project to Conflict
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.	**No Conflict.** 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 sites are located; these sediments have expansion potential ranges from very low to moderately low. Additionally, the U.S. Department of Agriculture's (USDA) Web Soil Survey does not identify the Project site or surrounding area as containing clay soils, which are typically expansive (USDA 2023).
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 development, all new development shall be required to complete on site drainage improvements at their expense.	**No Conflict.** As described in Section 4.8, Hydrology and Water Quality, the Project sites would also be designed and graded to mimic existing drainage patterns with gradients that drain towards the southwest corners of the two sites. On the Cordova Complex site, an underground storage basin would be located beneath the parking lot on the northern edge of the site, and three aboveground detention basins would be located along the southwestern portion of the site. On the Quarry at Pawnee site, one aboveground detention basin would be located along the southern edge of the site. These improvements would be designed and constructed consistent with local drainage control requirements and would facilitate treatment through on-site filtration; according to the hydrologic analyses conducted for each site, post-development hydrologic conditions would provide detention/infiltration volumes that are below those that have been calculated for existing or pre-development hydrologic conditions as required (see Appendix I). The Project would also include landscaped areas which would serve to capture increases in stormwater runoff. These improvements would serve to meet the Design Capture Volume consistent with the Mojave River Watershed Technical Guidance Document for Water Quality Management Plans.
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.	**No Conflict.** See response to Program 1.A.4 of the Flooding and Hydrology Element. Proposed on-site basins would be designed to capture the entire volume generated from a 10-year storm, meaning no runoff would be discharged off site, and not more than 90% of the 100-year volume consistent with the Town's requirements.
Program 1.D.1. The retention of stormwater on a project site shall be enforced through the development review process and routine site inspection.	**No Conflict.** See response to Policy 1.A.4 of the Flooding and Hydrology Element. The Project proposes on-site stormwater retention that would be subject to routine site inspection once operational.

Table 4.9-3. Analysis of the Project's Potential to Conflict with the Town of Apple Valley General Plan

Policy/Program	Potential for Project to Conflict
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.	**No Conflict.** Potential Project noise impacts, which considered noise attenuation, are reviewed in Section 4.10, Noise. As discussed in Section 4.10, the Project may result in significant off-site traffic noise. Potential mitigation measures are considered to address significant impacts from both construction and traffic noise, including the use of rubberized asphalt hot mix pavement and off-site noise barriers, consistent with this policy. While such measures may somewhat reduce noise levels, these measures would not sufficiently mitigate the increased noise levels generated by the projected vehicular traffic, particularly from heavy trucks, and, as discussed in Section 4.10, would not be feasible to implement.
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.	**No Conflict.** As discussed in Section 4.10, Noise, the Project would introduce new stationary sources of noise, including outdoor HVAC equipment. The noise analysis determined noise levels would not exceed the Town's applicable noise standards for daytime or nighttime noise. Additionally, the estimated noise levels from the Project would be below the existing measured daytime ambient noise levels in the Project vicinity.
Program 1.A.4. Minimum requirements for noise analyses for proposed development 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.	**No Conflict.** See response to Program 1.A.2 of the Noise Element. Project analysis is supported by noise modeling consistent with the Town's 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.	**No Conflict.** See response to Program 1.A.2 of the Noise Element.

Table 4.9-3. Analysis of the Project's Potential to Conflict with the Town of Apple Valley General Plan

Policy/Program	Potential for Project to Conflict
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.	**No Conflict.** 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, which contains basic information on the location, type, quantity, and health risks of hazardous materials stored, used, or disposed of in the state.
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.	**No Conflict.** See response to Policy 1.D of the Hazardous and Toxic Materials Element. The Project owner/operator must complete and submit a Hazardous Materials Business Plan (HMBP) to the California Environmental Reporting System. 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. 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 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.	**No Conflict.** The Project site is primarily surrounded by undeveloped land with some scattered rural residences. 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 present in the Project area.

Table 4.9-3. Analysis of the Project's Potential to Conflict with the Town of Apple Valley General Plan

Policy/Program	Potential for Project to Conflict
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.	**No Conflict.** See response to Policy 1.E and Policy 1.G of the Air Quality Element. The Project would reduce the consumption of energy for transportation during construction by requiring cleaner and/or alternative energy off-road equipment (PDF-CON-1 and PDF-CON-2), idling restrictions (PDF-CON-3), haul truck requirements for newer model years (PDF-CON-4). During operation, the Project would implement PDFs that would further reduce transportation energy demand, including installing EV charging stations for passenger vehicles and heavy-duty trucks, cleaner truck fleet, and anti-idling restrictions. The Project would also be required by state law to comply with CALGreen building standards and is designed to achieve LEED Silver certification which includes energy saving measures.
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.	**No Conflict.** As discussed in Section 4.11, Transportation, based on the findings of the traffic impact analyses (Appendix C), it was noted that the Apple Valley Fire Department would require a secondary paved access road to the Project site. As part of the proposed roadway improvements, Navajo Road would be extended to Johnson Road and would accommodate two 12-foot-wide travel lanes, consistent with the General Plan. Therefore, the road extension would serve as a secondary access road for emergency vehicles and meet the requirements of the Fire Department. Furthermore, 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 would also 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.
Program 1.E.1. The Fire District and the Fire Marshal shall review all development proposals, and project design or conditions of approval, as appropriate, shall incorporate their input.	**No Conflict.** The Project has been reviewed in detail by Town 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.

North Apple Valley Industrial Specific Plan

Jurisdictions may adopt specific plans to focus more specifically on the unique characteristics of a certain area. As previously mentioned, the Project is located within the area of the Town covered under the NAVISP. The NAVISP governs land use for 6,221 acres in the northern portion of the Town and it seeks to promote industrial land use within its area. According to the NAVISP, the Project site is zoned as I-SP. This zoning designation allows for a broad range of clean manufacturing and warehousing uses, including warehouse distribution facilities. As such, the Project is an allowed use under the current zoning designation and would not introduce an incompatible land use in the Town. Additionally, Project plans would be reviewed by Town staff to ensure consistency with all applicable development standards and regulations. Table 4.1-2 in Section 4.1, Aesthetics, summarizes the Project's potential to conflict with the development standards in the NAVISP. As shown in Table 4.1-2, the Project would have no conflicts with the NAVISP development standards. Therefore, impacts related to conflicts with the NAVISP would be less than significant.

Threshold C: Would the Project result in cumulatively considerable impacts related to land use and planning?

Less-than-Significant Cumulative Impact. The geographic area considered for the analysis of cumulative impacts related to land use and planning is the County of San Bernardino and jurisdictions therein. Proposed and pending development projects listed in Table 4-1 at the beginning of Chapter 4, Environmental Analysis, include projects that are under the jurisdiction of, and subject to approval by, the Town and the City of Victorville. Although cumulative projects could have conflicts with established land use and planning documents and land use policies, they would be subject to review and approval by the applicable jurisdictions. During the review and approval process, each of these projects would be required to be designed or otherwise conditioned to avoid conflicts with adopted land use plans and ordinances. Should potential impacts be identified, appropriate mitigation would be prescribed that would likely reduce potential impacts to less-than-significant levels. Furthermore, land use consistency is site-specific and would not combine to create a cumulative impact. Therefore, the Project, in combination with past, present, and reasonably foreseeable future development, would result in less-than-significant cumulative impacts related to conflicts with land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect.

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 a less-than-significant impact related to conflicts with any 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 related to land use and planning?

Land use consistency is site-specific and would not combine to create a cumulative impact. No mitigation is required.

4.9.6 References

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4.10 Noise

This section describes existing conditions related to noise, identifies associated regulatory requirements, evaluates potential project and cumulative impacts, and identifies mitigation measures for any significant or potentially significant impacts related to implementation of the Cordova Complex and Quarry at Pawnee Warehouse Project (Project).

Comments regarding noise were received from the State of California Department of Justice during the scoping period for this environmental impact report (EIR). These comments included general concerns about noise levels resulting from Project operation, and recommendations for noise analysis methodology and measures to mitigate noise impacts. All scoping comment letters received are provided in Appendix A.

This analysis is based on modeling conducted for the Project as part of this EIR. The results of the noise modeling are summarized in this section, and are included in Appendix L.

4.10.1 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 (dBA) scale 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 4.10-1 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.

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} metric, 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.

Table 4.10-1. 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)
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.

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. However, some common sources of vibration are trains, buses and trucks 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, long-term assisted or skilled nursing facilities, 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 several residential uses located to the northwest, east, and southwest. 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.

Existing Noise Conditions

Currently, the Project site is vacant and undeveloped; thus, little to no noise is currently generated on site. However, the surrounding area is subject to traffic noise associated with adjacent roadways (such as Quarry Road, Dale Evans Parkway, and Interstate 15 (I-15) as well as existing distribution centers in the vicinity. There are no other major noise sources in the Project vicinity.

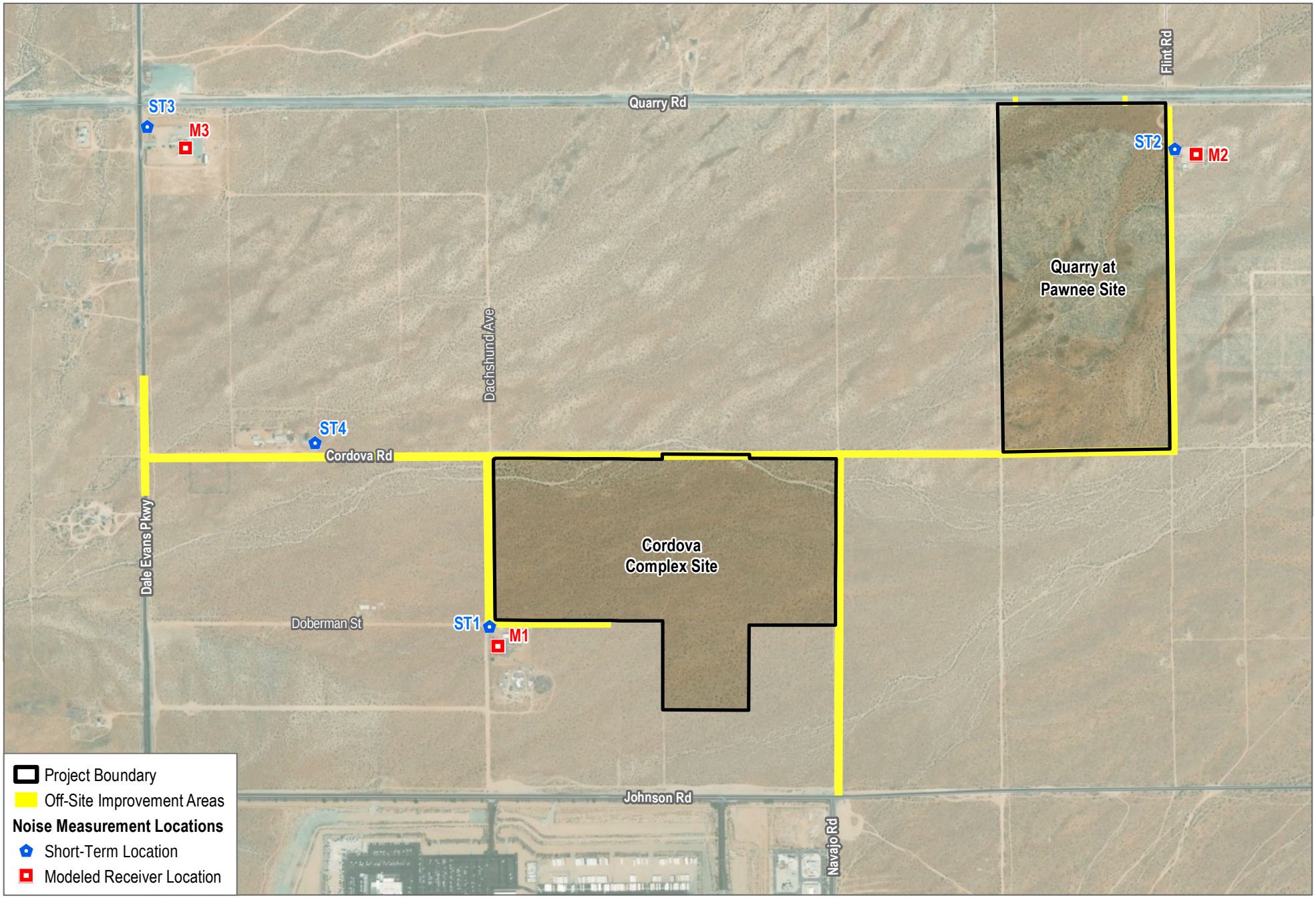
Noise measurements were conducted near the Project site on October 10, 2023, to characterize existing noise levels.[1] Four short-term noise measurement locations (ST) that represent existing sensitive receivers were selected in the vicinity of the Project site. These locations are depicted as receivers ST1–ST4 on Figure 4.10-1. The measured energy averaged (L_{eq}) and maximum (L_{max}) noise levels are provided in Table 4.10-2. The primary noise sources at the measurement sites consisted of distant traffic along nearby roadways; distant barking dogs and distant aircraft represented secondary noise sources. As shown in Table 4.10-2, the measured sound levels ranged from approximately 46 dBA L_{eq} at ST2 to 64 dBA L_{eq} at ST3. The field noise data sheets are provided in Appendix L.

Table 4.10-2. Measured Noise Levels

Receptor[1]	Location	Date and Time	L_{eq} (dBA)	L_{max} (dBA)
ST1	South of Project site, adjacent to residence at 19493 Dachshund Avenue	10/10/2023 11:14 a.m.–11:34 a.m.	49.7	57.7
ST2	East of Project site, adjacent to residence at 20025 Flint Road	10/10/2023 12:33 p.m.–12:53 p.m.	45.5	62.2
ST3	West of Project site, adjacent to residence at 20045 Dale Evans Parkway	10/10/2023 12:06 p.m.–12:29 p.m.	63.7	86
ST4	West of Project site, adjacent to residence at 21050 Cordova Road	10/10/2023 11:41 a.m.–12:01 p.m.	47	61.5

Source: Appendix L.
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 4.10-1, Noise Measurement and Modeling Locations.

[1] 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) 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.



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

DUDEK

0 500 1,000 Feet

FIGURE 4.10-1

Noise Measurement and Modeling Locations

Cordova Complex and Quarry at Pawnee Warehouse Project

4.10.2 Regulatory Framework

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 Transit Administration

In its Transit Noise and Vibration Impact Assessment Manual, the Federal Transit Administration (FTA) recommends a daytime construction noise level threshold of 80 dBA L_{eq} over an 8-hour period (FTA 2018) when detailed construction noise assessments are performed to evaluate potential impacts to community residences surrounding a project. Although this FTA guidance is not a binding regulation, it is provided here for comparison purposes and to establish a quantitative threshold of significance for construction noise, in the absence of such limits at the state and local levels.

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 below in Section 4.10.3, 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

The Town of Apple Valley (Apple Valley or Town) General Plan includes a Noise Element.

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, have the responsibility to set specific noise standards based on local conditions.

California Department of Transportation

In its Transportation and Construction Vibration Guidance Manual, the California Department of Transportation (Caltrans) recommends a vibration velocity threshold of 0.2 ips PPV (Caltrans 2020b) for assessing "annoying" vibration impacts to occupants of residential structures. Although this Caltrans guidance is not a regulation, it can serve as a quantified standard in the absence of such limits at the local jurisdictional level. Similarly, thresholds to assess building damage risk due to construction vibration vary with the type of structure and its fragility but tend to range between 0.3 ips and 0.4 ips PPV for typical residential structures (Caltrans 2020b).

Local

Town of Apple Valley General Plan

Applicable policies and standards governing environmental noise in the Town are contained in the Town of Apple Valley General Plan Noise Element (Town of Apple Valley 2009). The 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 applicable to the Project:

Goal. Noise levels that are consistent with the Town's rural character and high quality of life.

Policy 1.A. The Town shall adhere to the standards of "Land Use Compatibility for Community Environments."

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.

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.

The State of California's Land Use Compatibility Plan (Table IV-4 in the Town's General Plan Noise Element, provided here as Table 4.10-3) lists land use categories and the acceptable and unacceptable levels of community noise exposure. The compatibility criteria shown in Table 4.10-3 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 4.10-3. 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
Schools, Libraries, Churches, Hospitals, Nursing Homes	50–65	60–70	70–80	80–85
Amphitheater, Concert Hall, Auditorium, Meeting Hall	N/A	50–70	N/A	65–85
Sports Arenas, Outdoor Spectator Sports	N/A	50–75	N/A	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	N/A
Industrial, Manufacturing, Utilities, Agriculture	50–75	70–80	75–85	N/A

Source: Town of Apple Valley 2009.
Notes: dBA = A-weighted decibels; CNEL = Community Noise Equivalent Level; N/A = 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 Apple Valley 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 4.10-4) 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 4.10-4. Exterior Noise Limits

Receiving Land Use Category	Time Period	Noise Level (dBA)[1]
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
Limited Commercial and Office	10 p.m. - 7 a.m.	55
	7 a.m. - 10 p.m.	60
General Commercial	10 p.m. - 7 a.m.	60
	7 a.m. - 10 p.m.	65
Light Industrial	Any Time	70
Heavy Industrial	Any Time	75

Source: Town of Apple Valley Municipal Code, Table 9.73.050-A.
Notes: dBA = A-weighted decibels.
[1] Not to be exceeded more than 30 minutes in any hour.

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 4.10-5).
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.

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 ips over the range of 1 to 100 Hz.

Table 4.10-5. Construction Noise Limits

AT RESIDENTIAL PROPERTIES			
Mobile Equipment: Maximum noise levels for nonscheduled intermittent, short-term operation (less than 10 days) of mobile equipment:			
	Type I Areas Single-Family Residential	**Type II Areas Multifamily Residential**	**Type III Areas Semi-Residential/ Commercial**
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:			
	Type I Areas Single-Family Residential	**Type II Areas Multifamily Residential**	**Type III Areas Semi-Residential/ Commercial**
Daily, except Sundays and Legal Holidays, 7 a.m. to 7 p.m.	60 dBA	65 dBA	70 dBA
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.
Note: dBA = A-weighted decibels.

4.10.3 Thresholds of Significance

The significance criteria used to evaluate the Project impacts to noise are based on Appendix G of the California Environmental Quality Act (CEQA) Guidelines. According to Appendix G of the CEQA Guidelines, 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.
D. Result in cumulatively considerable impacts related to noise.

Quantitative thresholds of significance have been established for the purposes of this analysis based on the local polices and regulations described in Section 4.10.2, Regulatory Framework, 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 (see Table 4.10-5 above).

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[2]). The changes in noise exposure that are shown in Table 4.10-6 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.[3]

Table 4.10-6. 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

Source: FICON 1992.

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 4.10.2, Regulatory Framework.

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 4.10.2, Regulatory Framework.

Issues Not Further Discussed

The Project's Initial Study (see Appendix A) determined that the Project would have no impact related to Threshold C (relating to the potential for people residing or working in the Project area to be exposed to excessive noise levels from nearby airports or airstrips), because the Project site is not located within a runway protection zone or safety zone area, which would have potential safety and noise impacts. Therefore, this issue is not discussed further in this section.

2 As discussed in Section 4.10.1, Existing Conditions, the L_{dn} and CNEL noise metrics are very similar and often used interchangeably.

3 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.

4.10.4 Impact Analysis

This section contains an evaluation of potential environmental impacts associated with the Project related to noise. The section describes the methods used in conducting the analysis and evaluates the Project-specific impacts and contribution to significant cumulative impacts, if any are identified.

Methodology

Construction

Equipment Inventory

Consistent with the Project's air quality/greenhouse gas analyses, the California Emissions Estimator Model (CalEEMod) was used to identify the construction equipment anticipated for development of the Project. Based on this information, CalEEMod identified the anticipated equipment for each phase of Project construction, listed in Table 4.10-7.

Table 4.10-7. Construction Equipment by Phase

Construction Phase	Equipment	
	Equipment Type	Quantity
On-Site Construction		
Site Preparation	Rubber Tired Dozers	3
	Tractors/Loaders/Backhoes	4
Grading	Excavators	2
	Graders	1
	Rubber Tired Dozers	1
	Scrapers	2
	Tractors/Loaders/Backhoes	2
Building Construction	Cranes	1
	Forklifts	3
	Generator Sets	1
	Tractors/Loaders/Backhoes	3
	Welders	1
Paving	Pavers	2
	Paving equipment	2
	Rollers	2
Architectural Coating	Air Compressors	1
Off-Site Construction		
Utilities/Off-Site Improvements	Trenchers	1
	Cranes	1
	Tractors/Loaders/Backhoes	1
	Pavers	1
	Paving Equipment	1
	Rollers	1

Source: Table 4.2-5 (Section 4.2, Air Quality).

Project Site Assessment

With the construction equipment noise sources identified in Table 4.10-7 above, a noise analysis was performed using the Federal Highway Administration's (FHWA's) Roadway Construction Noise Model (RCNM) (FHWA 2008). Input variables for RCNM consist of the receiver/land use types, the equipment type (e.g., backhoe, grader, scraper), the number of equipment pieces, the duty cycle for each piece of equipment (i.e., percentage of time the equipment typically works in a given time period), and the distance from the noise-sensitive receiver to the construction zone. 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 utilized for this analysis. Refer to Appendix L for the inputs used in the RCNM model and the detailed results.

Operation

Traffic Noise

Potential noise effects from vehicular traffic were assessed using the FHWA's Traffic Noise Model (TNM) version 2.5 (FHWA 2004). Information used in the model included the site geometry, existing, future (Year 2040) without Project, and future (Year 2040) with Project traffic volumes and posted traffic speeds. Noise levels were modeled at representative noise-sensitive receiver ST4 as well as at additional modeled-only locations (M1 through M3) as shown in Figure 4.10-1.

On-Site Operational Noise

The propagation of sound from a combination of Project on-site noise sources was modeled with commercially available Datakustik CadnaA software, which incorporates relevant International Organization of Standardization (ISO) 9613-2 algorithms and reference data that are generally considered to be industry standard for outdoor noise modeling. Key modeling assumptions and parameters are summarized in the Project's technical noise report.

Impacts

Threshold A: Would the Project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Significant and Unavoidable Impact. As explained in detail below, noise impacts associated with short-term Project construction activities, including on-site construction noise from construction of the warehouse buildings and associated on-site improvements, off-site construction noise from construction of roadway and utility improvements, and noise from construction vehicle traffic traveling on local roadways, would be less than significant. Noise impacts from long-term Project operation associated with on-site operational noise from stationary sources and parking lot activity would be less than significant. Operational noise associated with increased vehicle traffic would be significant and unavoidable.

Short-Term Construction Noise

Construction activities would take place during permitted hours (between 7:00 a.m. and 7:00 p.m., Monday through Saturday) and would not occur on Sundays or federal holidays as specified in the Apple Valley Municipal Code. Construction of the Project would generate noise that could expose nearby receptors to elevated noise levels that may disrupt communication and routine activities. The magnitude of the impact would depend on the type of construction activity, equipment, duration of the construction, distance between the noise source and receiver, and intervening structures. The following discussion addresses the noise levels estimated to result from construction of the Project at nearby sensitive receptors (i.e., residences).

Sensitive receptors in the vicinity of the Project site include residential uses to the northwest, southwest, and east. These sensitive receptors represent the nearest land uses with the potential to be impacted by construction of the Project. Project construction would take place both near and far from existing land uses. For example, construction would take place as near as approximately 190 feet from a residential land use southwest of the Cordova Complex Project boundary, but (because of the Project's size) construction work would also take place as far as 2,800 feet from the same residences. Most construction activities associated with the Project would occur at an average distance of approximately 1,500 feet from the residence to the south, which represents activities both near and far, as is typical for construction projects. Similarly, construction would take place as near as approximately 250 feet from a residential land use east of the Quarry at Pawnee Project boundary, but (because of the Project's size) construction work would also take place as far as 2,600 feet from the same residences. Most construction activities associated with the Project would occur at an average distance of approximately 1,400 feet from the residence to the east, which represents activities both near and far, as is typical for construction projects. Construction noise estimates for these two nearest receivers in the Project vicinity were calculated for both the nearest construction activity/receiver distances and for typical construction activity/receiver distances.

The results of the Project site's on-site construction noise analysis were modeled using the RCNM and are summarized in Table 4.10-8. As shown, typical construction noise levels at the nearest noise-sensitive land uses (residences to the south) are estimated to range from approximately 44 dBA $L_{eq\ 8\text{-}hr}$ during the architectural coating phase to approximately 59 dBA $L_{eq\ 8\text{-}hr}$ during the grading phase. Table 4.10-8 also shows construction noise level predictions at distances between the noise-sensitive receptor position and the anticipated nearest boundary associated with a construction phase, which are thus shorter than those with respect to the acoustic centroid for the same phase; these levels would range from approximately 61 dBA $L_{eq\ 8\text{-}hr}$ during the architectural coating phase to approximately 72 dBA $L_{eq\ 8\text{-}hr}$ during the grading phase. These noise levels would be lower than the Town's construction noise standards. Therefore, noise from Project site construction would be less than significant.

Table 4.10-8. On-Site Construction Noise Analysis Summary

Off-Site Receptor Location	Distance from Construction Activity to Noise Receptor (feet)	Construction Noise at Nearest Receiver Distances ($L_{eq\ 8\text{-}hr}$[dBA])					Applicable Noise Standard[1]	Applicable Noise Standard Exceeded?
		Site Preparation	Grading	Building Construction	Paving	Architectural Coating		
Southwest of the Project (Cordova Complex)	Typical Construction Activity/ Receiver Distance (1,400')	58	59	54	57	44	60	No
	Nearest Construction Activity/ Receiver Distance (190')	71	72	66	70	61	75	No
East of the Project (Quarry at Pawnee)	Typical Construction Activity/ Receiver Distance (1,400')	58	59	54	57	44	60	No
	Nearest Construction Activity/ Receiver Distance (250')	70	70	64	69	59	75	No

Source: Appendix L.
Note: dBA = A-weighted decibel; L_{eq} = equivalent continuous sound level (time-averaged sound level).
[1] Applicable noise standard per Town of Apple Valley Municipal Code Section 9.73.050 subsection (F) of the Municipal Code, as discussed in Section 4.10.2.

Off-Site Construction Noise

As shown in Figure 3-7 and Figure 3-8 in Chapter 3, Project Description, the Project would include off-site street and utilities construction activities. Like the noise assessment for on-site construction work as summarized above, the resulting noise from off-site construction activities was assessed using the RCNM. The nearest noise-sensitive receivers to the off-site construction activities (and thus the receivers the most affected) would be the residences to the southwest of the Cordova Complex site and to the east of the Quarry at Pawnee site, during roadway widenings and utilities installation within the roadway alignments of Dachshund Avenue and Flint Road. Noise levels at other locations would be lower because they would be farther from the construction work. Because of the linear nature of the work, the amount of time that construction work would occur adjacent to any one noise-sensitive receiver would generally be relatively short (typically, one to two days for open-trench pipeline installation). The resulting noise levels are summarized in Table 4.10-9. As shown, the worst-case noise level from street and utilities construction is estimated to be approximately 72 dBA $L_{eq\ 8\text{-}hr}$ at the nearest noise-sensitive receivers (single-family residences approximately 100 feet from the nearest construction work southwest of the Cordova Complex Project boundary).

Typically, off-site improvements and utilities installation would take place further away (an average distance of approximately 900 to 1,000 feet from the residences to the south and east respectively) and thus construction noise levels would be substantially lower at approximately 59 dBA $L_{eq\ 8\text{-}hr}$. These noise levels would be lower than the Town's construction noise standards. Therefore, noise impacts from off-site construction activities would be less than significant.

Table 4.10-9. Off-Site Construction Noise Analysis Summary

Off-Site Receptor Location	Distance from Construction Activity to Noise Receptor (feet)	Construction Noise at Nearest Receiver Distances ($L_{eq\ 8\text{-}hr}$[dBA])	Applicable Noise Standard[1]	Applicable Noise Standard Exceeded?
		Utilities/Off-Site Improvements		
Southwest of the Project (Dachshund Ave.)	Typical Construction Activity /Receiver Distance (900')	59	60	No
	Nearest Construction Activity /Receiver Distance (125')	72	75	No
East of the Project (Flint Rd.)	Typical Construction Activity /Receiver Distance (1000')	58	60	No
	Nearest Construction Activity /Receiver Distance (200')	72	75	No

Source: Appendix L.
Note: dBA = A-weighted decibel; L_{eq} = equivalent continuous sound level (time-averaged sound level).
1 Applicable noise standard per Town of Apple Valley Municipal Code Section 9.73.050 subsection (F) of the Municipal Code, as discussed in Section 4.10.2, Regulatory Framework.

Construction Vehicles (On-Road)

The Project would result in local, short-term increases in roadway noise as a result of construction traffic. Based on assumptions developed to inform the Project's air quality analysis in Section 4.3, Air Quality, Project-related traffic would include workers commuting to and from the Project site as well as vendor and haul trucks bringing or removing materials. The highest number of average daily worker trips would be 616 trips, occurring during the building construction phase. The highest number of average daily vendor truck trips would be 240 trips, also occurring during the building construction phase. The highest number of average daily haul truck trips during Project construction would be 200, occurring during the grading phase.

Project-related trucks would be restricted to the Town-authorized truck routes, and (like the Project site) would be relatively far from residential or other noise-sensitive areas. It is anticipated that most of the construction-related trips in the Project vicinity would occur on Johnson Road (a designated local truck route), Dale Evans Parkway (a designated through truck route) and Interstate 15 (I-15). Based upon provided average daily traffic (ADT) volumes (David Evans and Associates 2023), Johnson Road in the Project vicinity has an existing ADT of 3,917 vehicles per day, and Dale Evans Parkway has an existing ADT of between 4,408 and 4,842 vehicles per day. Based upon the most recent available traffic census data from Caltrans (Caltrans 2020c), I-15 has an ADT of 59,000 in the Project vicinity, with a truck percentage of approximately 24%. During the building construction phase, 856 additional vehicles (616 average daily worker trips and 240 average daily vendor trips) would be added to the local roadways. This would represent an incremental increase in traffic of approximately 22% on Johnson Road, and an incremental increase of approximately 19% on Dale Evans Parkway. Based upon the fundamentals of acoustics, a doubling (a 100% increase) would be needed to result in a 3-dB increase in noise levels, which is the level corresponding to an audible change to the typical human listener (Caltrans 2013). The resultant traffic noise increase would be less than 1 dB, and thus would not result in an audible change on an hourly or daily basis. Therefore, noise related to Project-related construction vehicles on local roadways would be less than significant.

Long-Term Operational Noise

On-Site Operational Noise

The Project would result in changes to existing noise levels on the Project site by introducing new stationary sources of noise, including outdoor HVAC equipment, and vehicle parking lot and truck loading dock activities. These sources may affect noise-sensitive land uses adjacent to the Project site. The following analysis evaluates noise from exterior mechanical equipment and activities associated with vehicle parking lots and truck loading docks on nearby sensitive receptors.

As shown in Table 4.10-10, which summarizes the results of the modeling for mechanical equipment and truck loading dock/truck yard activity noise, the resulting noise levels would not exceed the Town's applicable noise standards for daytime or nighttime noise. Additionally, the estimated noise levels from the Project would be below the existing measured daytime ambient noise levels in the Project vicinity, which ranged from approximately 46 to 64 dBA L_{eq}. Therefore, impacts related to on-site operational noise from mechanical equipment and truck loading dock/truck yard activity would be less than significant.

Table 4.10-10. Mechanical Equipment and Truck Loading Dock/Truck Yard Activity Noise

Modeled Receptor	Daytime (7 a.m. to 10 p.m.) Noise Level (dBA L_{eq})	Nighttime (10 p.m. to 7 a.m.) Noise Level (dBA L_{eq})	Applicable Daytime/ Nighttime Noise Standard[1] (dBA L_{eq})	Applicable Standard Exceeded?
ST4 – Residential uses to the west	22	20	50/40	No
M1 – Residential uses to the south	32	30	50/40	No
M2 – Residential uses to the east	31	28	50/40	No
M3 – Residential uses to the west	16	14	50/40	No

Source: Appendix L.
Notes: dBA = A-weighted decibel; L_{eq} = equivalent continuous sound level (time-averaged sound level).
1 Applicable exterior noise standard per Town of Apple Valley Municipal Code Section 9.73.050 (External and Internal Noise Standards), detailed in Section 4.10.2, Regulatory Framework.

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 building's parking areas would function as a source for noise, which means that noise would attenuate at a rate of 3 dBA with each doubling of distance. The employee parking lot adjacent to the nearest noise-sensitive receiver (the residence to the southwest of the Cordova Complex site) is proposed to be situated on the south side of the warehouse building, no closer than 1,300 feet from the residential property. At a distance of 1,300 feet, parking lot noise levels would be approximately 21 dBA L_{eq}, which would be well below the Town's daytime (7 a.m. to 10 p.m.) exterior residential noise standard of 50 dBA L_{eq} and the nighttime (10 p.m. to 7 a.m.) noise standard of 40 dBA L_{eq}. Therefore, impacts related to on-site operational noise from parking lot activity would be less than significant.

Traffic Noise

The Project would result in the creation of additional vehicle trips on local roadways (primarily Cordova Road), which could result in increased traffic noise levels at adjacent noise-sensitive land uses. Potential noise effects from vehicular traffic were assessed using the FHWA's Traffic Noise Model (TNM) version 2.5 (FHWA 2004). Information used in the model included the site geometry, existing, future (Year 2040) without Project, and future (Year 2040) with Project traffic volumes[4] and posted traffic speeds. Noise levels were modeled at representative noise-sensitive receiver ST4 as well as at additional modeled-only locations (M1 through M3) as shown in Figure 4.10-1. Detailed traffic noise modeling input and output is provided in Appendix L.

Table 4.10-11 shows that the maximum noise level increase would be up to 7 dB (when rounded to whole numbers), occurring at noise sensitive receiver ST4 (representative of the residence north of Cordova Road east of the Project site). An increase of 7 dB constitutes a readily perceptible change within the community noise context, exceeding the commonly accepted threshold of 3 dB necessary to discern a noticeable difference in ambient environmental noise levels, as outlined in standard noise assessment guidelines. The Project would result in an increase in noise

levels of 5 dB or more in locations with an ambient noise level of less than 60 dBA CNEL. Based upon these results, off-site traffic noise impacts would be significant at locations ST4, M1 and M2.

Table 4.10-11. Off-Site Traffic Noise Modeling Results

Modeled Receptor	Existing Noise Level (dBA CNEL)	Future Horizon Year (2040) Noise Level (dBA CNEL)	Future Horizon Year (2040) Plus Project Noise Level (dBA CNEL)	Noise Level Increase (dB)
ST4	36	47	54	7
M1	36	37	41	5
M2	42	42	46	5
M3	48	49	50	1

Source: Appendix L.

Potential mitigation measures to address significant impacts from traffic noise include use of rubberized asphalt hot mix pavement and off-site noise barriers for the existing residential use adjacent to impacted roadway segments. While such measures may somewhat reduce noise levels, these measures would not sufficiently mitigate the increased noise levels generated by the projected vehicular traffic, particularly from heavy trucks, as explained further as follows.

Rubberized asphalt has been shown to reduce automobile traffic noise levels by approximately 4 dBA, primarily by attenuating the noise generated from the interaction between tires and pavement (Caltrans 2011). This interaction accounts for a significant portion of traffic noise, particularly at higher speeds, with 75 to 90% of car traffic noise emanating from tire-pavement interaction (Caltrans 2013). However, the effectiveness of rubberized asphalt in reducing noise from heavy trucks is limited due to the height of truck engines and exhaust systems, typically about 11.5 feet above the road (Caltrans 2020a). Therefore, while rubberized asphalt can theoretically reduce off-site traffic noise levels by 4 dBA, it would not substantially reduce heavy truck noise. Because rubberized asphalt or other quieter pavement types would not be effective for the Project, this mitigation measure would not be feasible to implement.

Off-site noise barriers are estimated to provide a 5-dBA reduction in noise levels (FHWA 2017). According to Caltrans guidelines (Caltrans 2020a), these barriers should be high and long enough to block the line-of-sight from a truck's noise source, assumed at 11.5 feet, to the receiver. However, exterior noise barriers are not anticipated to provide a reduction in off-site traffic noise levels to below a level of significance and would face challenges due to requirements for driveway access to individual residential properties. Because it would not be possible to install such noise barriers within private properties, this mitigation measure would not be feasible to implement.

No feasible mitigation measures are available that would result in sufficient reduction of off-site traffic noise to a less-than-significant level. Consequently, Project-related off-site traffic noise impacts at adjacent noise-sensitive land uses would be significant and unavoidable.

Threshold B: Would the Project result in generation of excessive groundborne vibration or groundborne noise levels?

Construction

Less-than-Significant Impact. Groundborne noise and vibration sources during Project construction would include heavy equipment such as excavators, tractors, vibratory rollers, etc. 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 southwest of the Cordova Complex site) to where construction activity would be occurring on the Project site (approximately 190 feet), and with the anticipated type of construction equipment, the PPV vibration level would be approximately 0.005 ips. As such, vibration levels would be less than the Caltrans thresholds of 0.2 ips PPV for human annoyance, 0.3 ips PPV for the prevention of structural damage to typical residential buildings, and 0.5 ips PPV for damage to buildings of reinforced-concrete, steel, or timber construction. Because groundborne vibration from Project construction would not exceed recognized standards, and would be temporary and intermittent in nature, impacts related to generation of groundborne vibration or groundborne noise during construction would be less than significant.

Operation

During Project operation, no major sources of groundborne vibration are anticipated because the Project would not include any heavy machinery or manufacturing processes that would generate vibration. Project-related trucks and automobiles typically do not produce substantial levels of groundborne vibrations because roadgoing vehicles are supported by pneumatic tires and flexible suspensions (Caltrans 2020a). Thus, groundborne vibration during Project operation would be less than significant.

Threshold D: Would the Project result in cumulatively considerable impacts related to noise?

Significant and Unavoidable Impact. Non-transportation noise sources (e.g., on-site Project operation) and construction noise impacts are typically project-specific and highly localized (i.e., these do not generally affect the community noise level at distances beyond several hundred feet). Construction activities associated with proposed or future development within the area would contribute to cumulative noise levels, but in a geographically limited and temporary manner. In the vicinity of the Project site, there are no other reasonably foreseeable projects that would be under construction at the same time as the Project. As other development occurs in the area, noise from different types of uses (e.g., traffic, aircraft, and fixed noise sources) would continue to combine, albeit on a localized basis, to cause increases in overall background noise conditions within the area. As a result, such sources would not significantly contribute to cumulative noise impacts at distant locations and are not evaluated on a cumulative level.

The cumulative noise context for the Project includes increased traffic volumes on roadways in the vicinity and potential noise from other local development projects within the Town. It is difficult to project exactly how the ambient noise conditions within the area would change, but it is known that traffic noise levels would increase due to the additional traffic generated by the Project and other development in the Town and the region. When considering the cumulative noise impacts, it is crucial to assess the overall increase in noise levels against the noise compatibility standards set forth by the Town and the State of California.

The collective noise from traffic, aircraft, and stationary sources could result in incremental increases in the ambient noise environment within the immediate area. The Project's off-site traffic noise analysis, incorporating cumulative development projections for the year 2040, indicates that the maximum anticipated noise level increase would not exceed 7 dB at any analyzed sensitive receptor. This would be a significant cumulative impact.

Given the local noise standards, if the Project's contributions, along with other planned cumulative development, result in noise levels that exceed the established thresholds, the cumulative noise impact would be considered significant. Without feasible mitigation measures that can effectively reduce noise levels below these thresholds, the Project's cumulative noise impact from traffic (as shown in Table 4.10-11) would be cumulatively considerable and thus significant and unavoidable.

4.10.5 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?

The Project would result in a potentially significant impact related to an increase in off-site traffic noise on Cordova Road, Dachshund Avenue, and Flint Road. While potential noise mitigation measures, including the use of rubberized asphalt hot mix pavement and off-site noise barriers for the existing residential uses adjacent to impacted roadway segments may somewhat reduce noise levels, these measures would not be wholly feasible to mitigate the increased noise levels generated by the projected increase in vehicular traffic. Specifically, rubberized asphalt, although effective in reducing noise levels by approximately 4 dBA, primarily attenuates noise from tire-pavement interaction which is more pronounced in automobile versus heavy truck traffic. Its effectiveness in mitigating noise from heavy trucks is significantly limited due to the elevated position of truck engines and exhaust systems, about 11.5 feet above the road, where the benefit of pavement noise reduction is greatly diminished (Caltrans 2020a). As for off-site noise barriers, while barriers are estimated to provide a 5-dBA reduction in noise levels, implementing such barriers effectively presents challenges. These barriers need to be sufficiently high and long to block the line-of-sight from a truck's noise source at 11.5 feet to the receiver. However, the practicalities of constructing barriers that meet these specifications, especially considering the need for driveway access to individual residential properties, poses significant logistical and feasibility issues (FHWA 2017; Caltrans 2020a). Therefore, there is no feasible mitigation available to reduce impacts to less than significant and impacts associated with Project-related off-site traffic noise at adjacent noise-sensitive land uses would be significant and unavoidable.

Threshold B. Would the Project result in generation of excessive groundborne vibration or groundborne noise levels?

The Project would result in a less-than-significant impact related to generation of excessive groundborne vibration or groundborne noise during construction and operation. No mitigation is required.

Threshold D. Would the Project result in cumulatively considerable impacts related to noise?

The Project, in combination with past, present, and reasonably foreseeable future development, would result in a significant cumulative impact related to noise. The Project's contribution to the significant cumulative impact would be cumulatively considerable, and thus, significant and unavoidable.

4.10.6 References

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4.11 Transportation

This section describes the existing conditions related to transportation, identifies associated regulatory requirements, evaluates potential project and cumulative impacts, and identifies mitigation measures for any significant or potentially significant impacts related to implementation of the Cordova Complex and Quarry at Pawnee Warehouse Project (Project).

Comments regarding transportation were received from the State of California Department of Justice (DOJ) and the Center for Community Action and Environmental Justice (CCAEJ) during the scoping period for this environmental impact report (EIR). Comments from the DOJ expressed concerns about Project impacts associated with truck and passenger car trips on traffic, road surfaces, and traffic safety; and listed several measures intended to mitigate traffic impacts. Comments from the CCAEJ expressed concerns about the impacts of truck traffic to an environmental justice community along a specific truck route, provision of adequate bicycle facilities in off-site roadway improvements, hazards associated with roadway widening, and vehicle miles traveled (VMT). All scoping comment letters received are provided in Appendix A.

This analysis is based on Focused Traffic Impact Analysis Reports prepared for the Project (David Evans and Associates 2023a, 2023b), included in Appendix C.

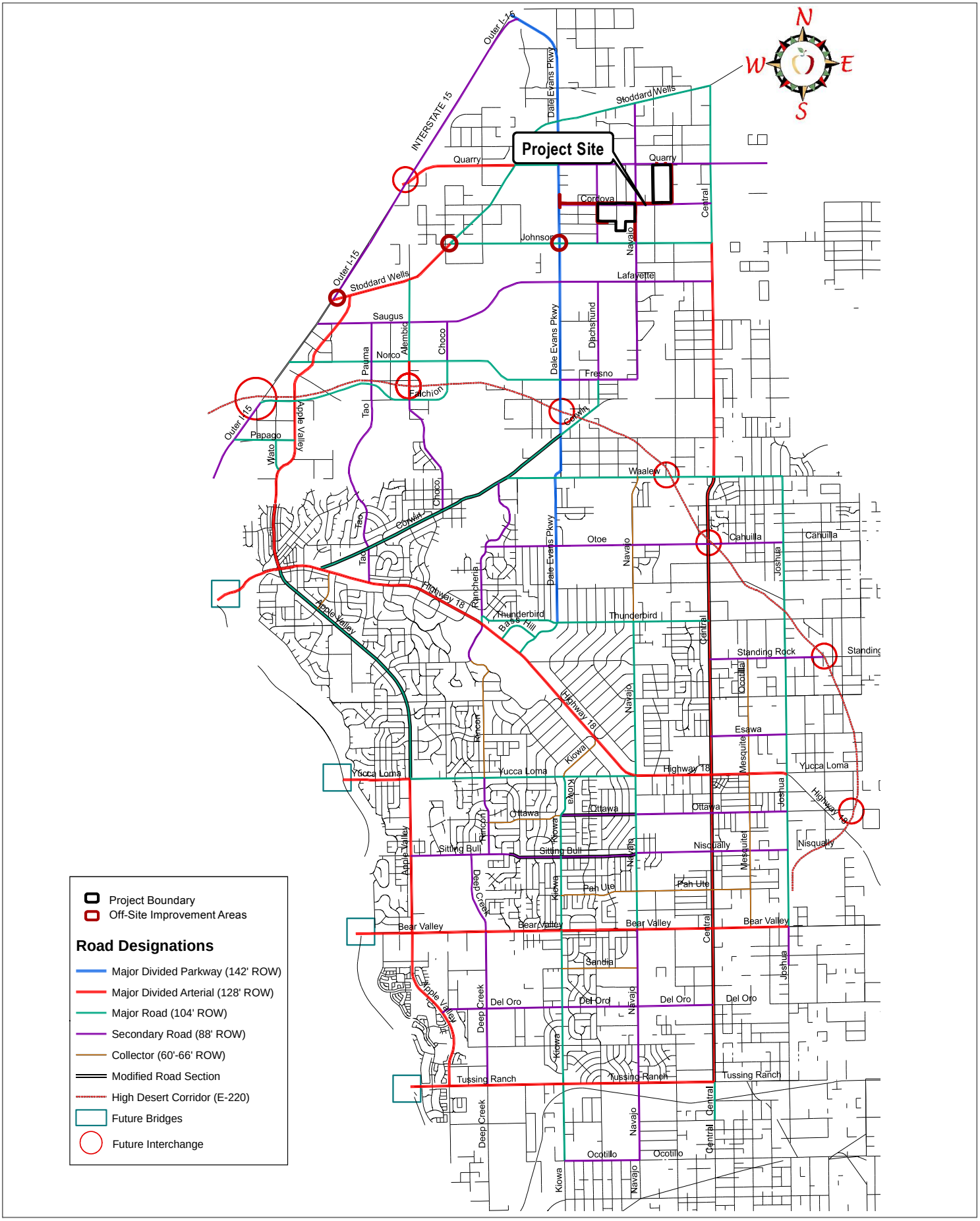
4.11.1 Existing Conditions

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 (Apple Valley or Town) using the San Bernardino County Transportation Authority's (SBCTA) San Bernardino Transportation Analysis Model (SBTAM).

Existing Circulation Network

Figure 4.11-1 provides the Town's General Plan Traffic Circulation Plan. Regional access to the site would be provided from Interstate 15 (I-15). Characteristics of the primary roadways within the study area are described below.

- **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–U.S. Border and extends to Alberta, Canada, and serves as a critical connection for many other regional roadways, freeways, and highways. The California Department of Transportation (Caltrans) classifies I-15 as a designated truck route on the National Network pursuant to the Surface Transportation Assistance Act (STAA). Within the vicinity of the Project site, access to I-15 is provided at Dale Evans Parkway to the north of the Project site and at Quarry Road/Stoddard Wells Road to the south of the Project site.
- **Stoddard Wells Road** is generally aligned in a north-south direction, with two lanes. It is an undivided rural road with unpaved shoulders and is a designated truck route in Apple Valley. Stoddard Wells Road is classified as a Major Divided Arterial between Outer I-15 S and Johson Road and a Major Road between Johnson Road and Central Avenue per the Town's General Plan Circulation Element.
- **Dale Evans Parkway** is a north-south, two-lane road located to the west of the Project site. It is an undivided rural road with some sections of paved and unpaved shoulders and is designated as a through truck route from Waalew Road to the I-15 interchange. Dale Evans Parkway is classified as a Major Divided Parkway per the Town's Circulation Element and North Apple Valley Industrial Specific Plan (NAVISP).



SOURCE: Town of Apple Valley 2012

FIGURE 4.11-1

Town of Apple Valley Circulation Element Map

Cordova Complex and Quarry at Pawnee Warehouse Project

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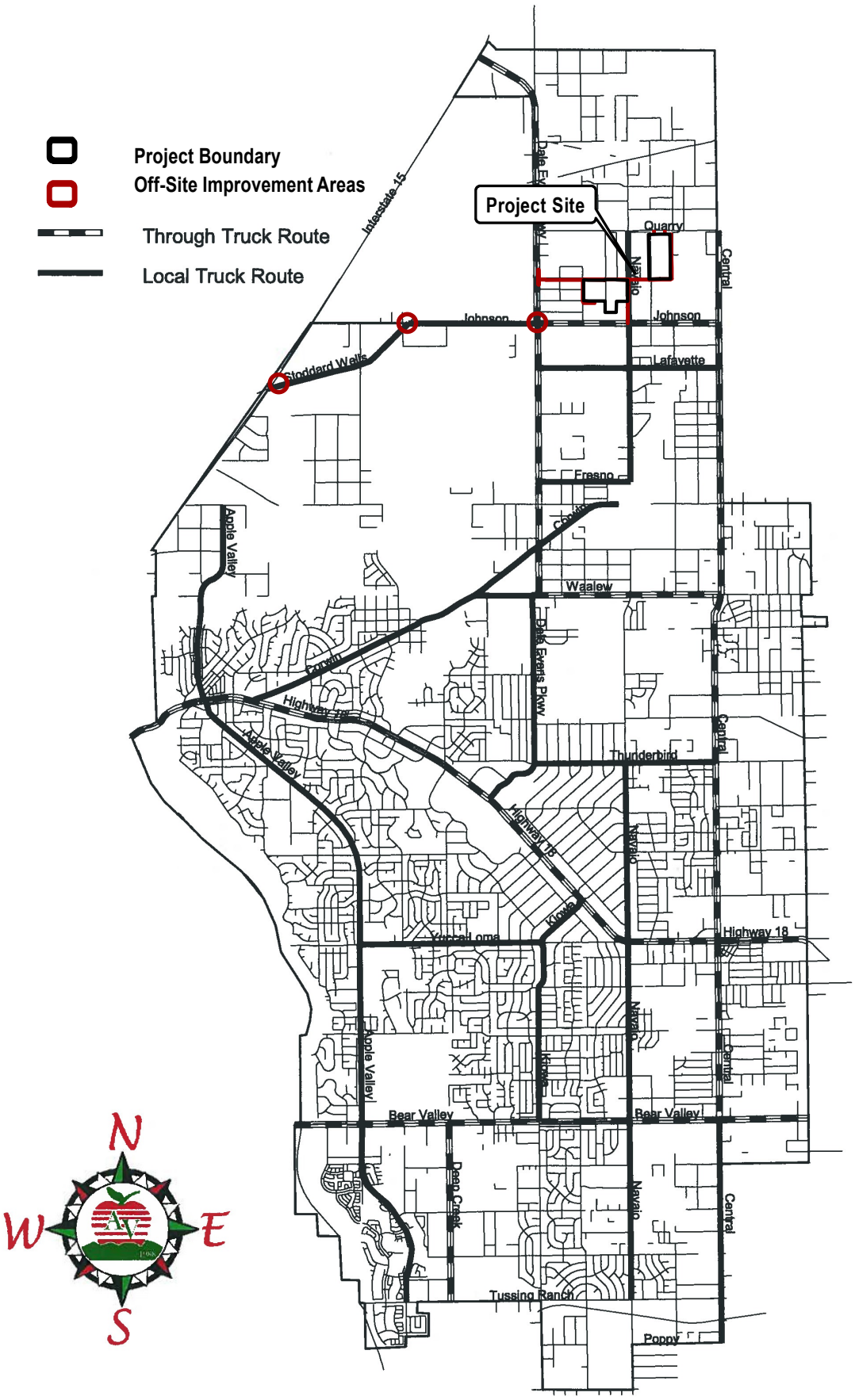
- **Quarry Road**, on the west side of I-15, is a north-south, two-lane, paved road between Stoddard Wells Road and the I-15 southbound ramps. North of the I-15 ramps, Quarry Road is an unpaved rural road. Recommended improvements to this section of Quarry Road within the Town limits are identified in the Town's General Plan Circulation Element, summarized below in Table 4.11-1. 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. 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. Quarry Road is classified as a Secondary Road in the vicinity of the Project site per the Town's Circulation Element and NAVISP.
- **Johnson Road** is an east-west, two-lane, undivided road located south of the Project site. Johnson Road is classified as a Major Road per the Town's Circulation Element and NAVISP.
- **Navajo Road** is a north-south, two-lane, undivided road between Fresno Road to the south and Johnson Road on the north. As part of the Project, Navajo Road would be extended north of Johnson Road, along the east side of the Cordova Complex site frontage. Navajo Road is classified as a Secondary Road per the Town's Circulation Element and NAVISP.
- **Central Road** is a north-south, six-lane, major divided highway located to the east of the Project site. Central Road begins at Stoddard Wells Road in the north and ends past Roundup Way in the south. It is classified as a Major Road to the north of Johnson Road and as a Major Divided Arterial to the south per the Town's Circulation Element and NAVISP.
- **Cordova Road** is a future east-west, two-lane road proposed along the north side of the Cordova Complex site frontage. Cordova Road is classified as a Secondary Road in the Town's General Plan Circulation Element and NAVISP.
- **Flint Road** is a future north-south, two-lane road proposed along the east side of the Quarry at Pawnee site frontage.
- **Dachshund Avenue** is a future north-south, two-lane road to be located east of the Project site. Dachshund Avenue is classified as a Secondary Road in the Town's General Plan Circulation Element and NAVISP.
- **Doberman Road** is a future east-west local two-lane road to be located between Dale Evans Parkway and Dachshund Avenue, southwest of the Project site.

Truck Routes

The County of 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 STAA 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, the Town has also identified several key truck routes, including Apple Valley Road, Dale Evans Parkway, Navajo Road, Stoddard Wells Road, Quarry Road, Johnson Road, Waalew Road, and Yucca Loma Road. A map of the Town's designated truck routes is provided on Figure 4.11-2.

Rail Service and Transit

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 proposed development of Brightline West, a high-speed passenger rail system that would connect Los Angeles with Las Vegas and would include a stop in Victor Valley (Brightline West 2023). The rail and transit providers are further described below.



SOURCE: Town of Apple Valley 2008

FIGURE 4.11-2

Town of Apple Valley Truck Routes

Cordova Complex and Quarry at Pawnee Warehouse Project

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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 4 commuter rail agencies (Amtrak 2023a). The closest passenger rail station is the Victorville Amtrak Station, located at 16858 South D Street in Victorville, approximately 8 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 2023b).

Brightline West

Brightline West is a proposed high-speed passenger rail system that is designed to connect the extended communities of Los Angeles, Palmdale, Cajon Pass, and 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).

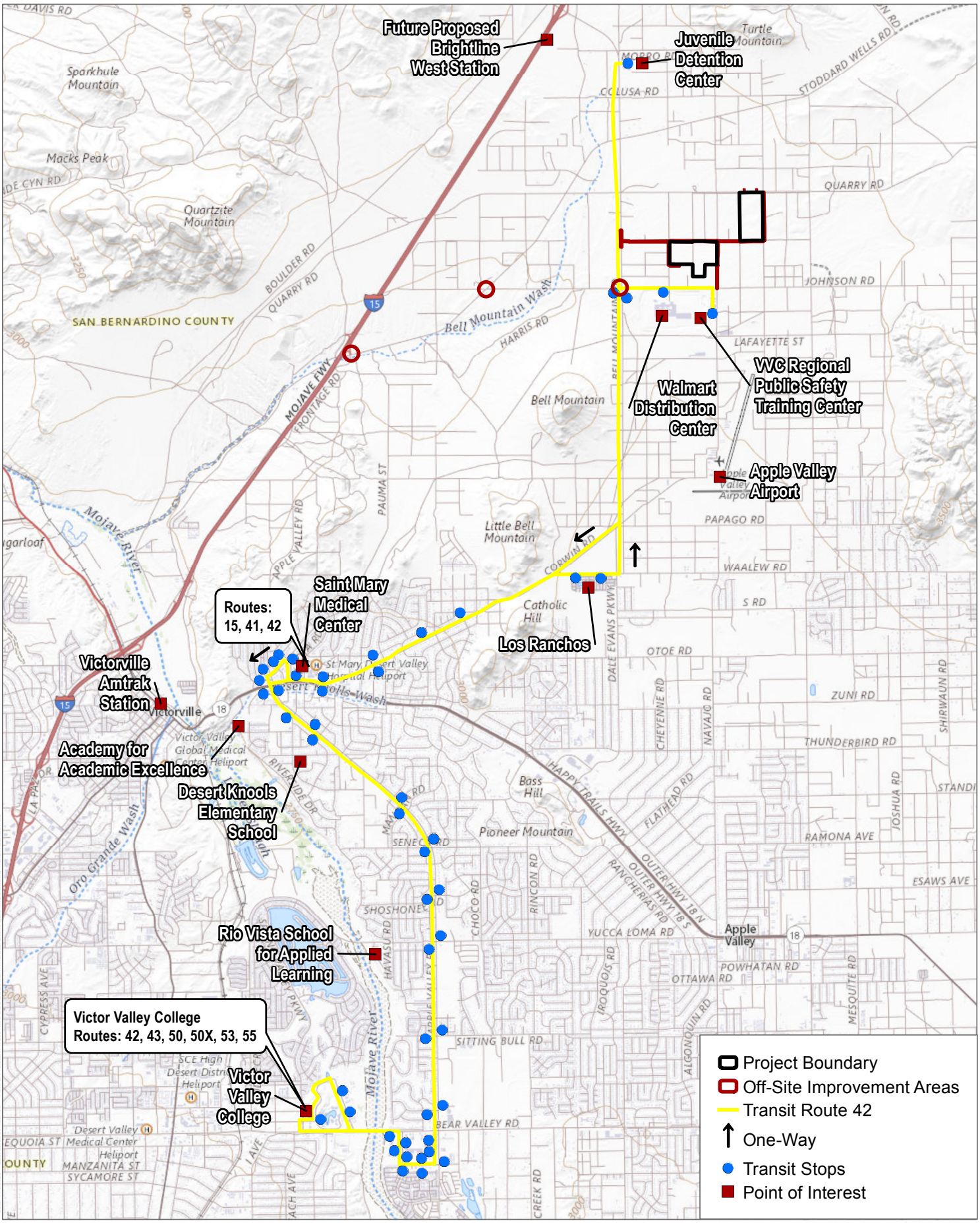
Victor Valley Transit Authority

VVTA provides local bus service for the communities of Adelanto, Apple Valley, Hesperia, Victorville, and unincorporated areas of the 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 42, shown on Figure 4.11-3, is the closest bus route to the Project site, with bus stops near the intersection of Dale Evans Parkway and Johnson Road, approximately 1 to 1.5 miles southwest of the Project site, as well as along Johnson Road across from the Walmart Distribution Center, and on Navajo Road across from the Victor Valley College Regional Public Safety Training Center. Route 42 connects Victor Valley College, St. Mary Medical Center, Los Ranchos, the Walmart Distribution Center, the Regional Public Safety Center, and the Juvenile Detention Center. The route operates weekdays, between 6:30 a.m. and 9:00 p.m., Saturday between 7:30 a.m. and 8:00 p.m., and Sunday between 8:30 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 its 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. 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 on Figure 4.11-4. A lifeline trail is proposed on Stoddard Wells Road, west and north of the Project site, extending from Johnson Road to Central Road.



SOURCE: USGS Basemap; San Bernadino County 2021; Victor Valley Transit 2022

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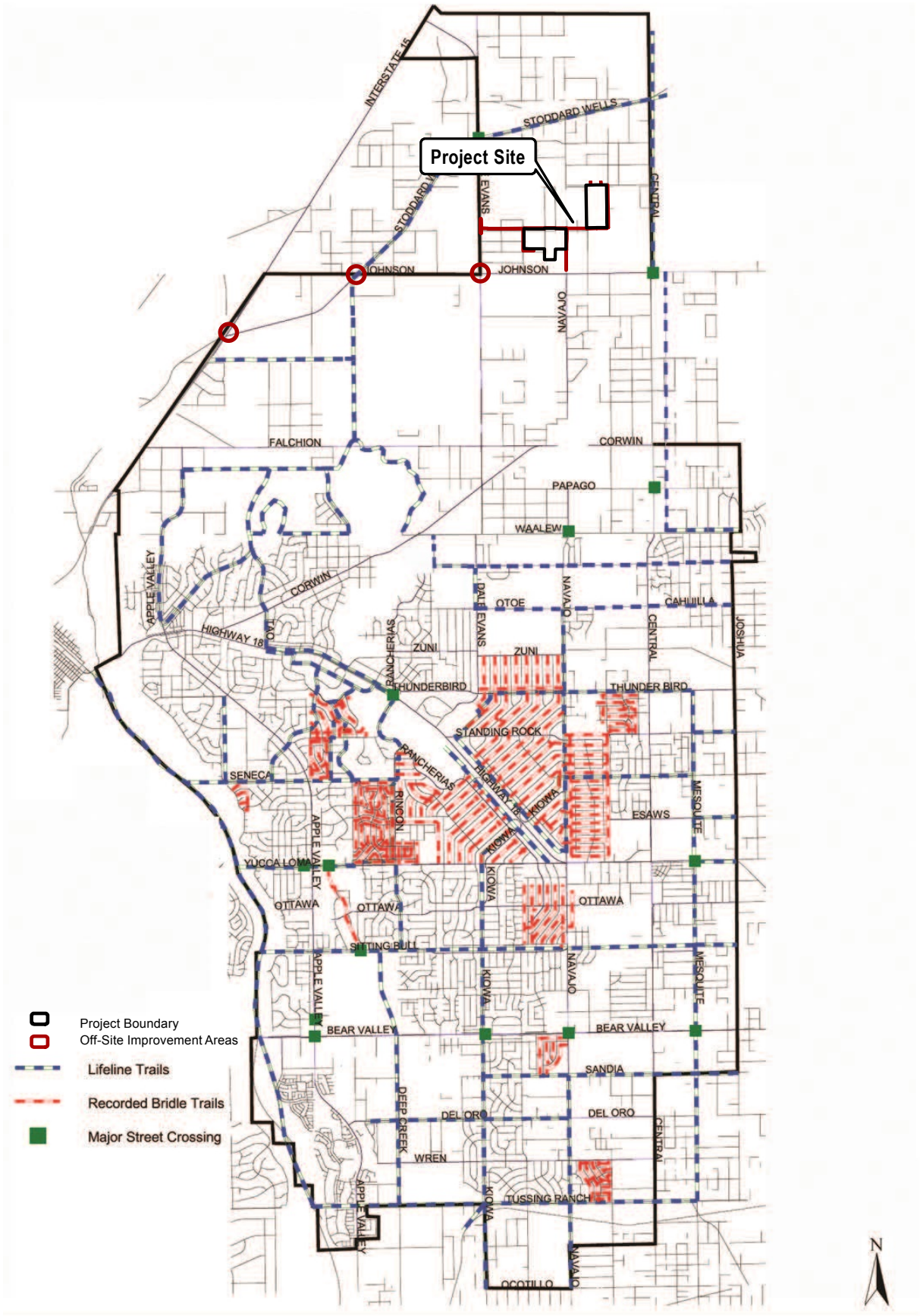
0 0.5 1 Miles

FIGURE 4.11-3

Existing Transit Facilities

Cordova Complex and Quarry at Pawnee Warehouse Project



SOURCE: Town of Apple Valley

FIGURE 4.11-4

Multi-Use and Equestrian Trails

Cordova Complex and Quarry at Pawnee Warehouse Project

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The General Plan also identifies proposed bike paths to ensure greater connectivity and access throughout the community and to promote non-motorized modes of travel. The Town's Bike Paths are presented on Figure 4.11-5. A Class II bike lane (on-street painted bike lane) is proposed along Outer Highway I-15 S between Norco Street and Stoddard Wells Road and along Stoddard Wells Road, between the I-15 and Alembic Street. A Class I bike path (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 Dale Evans Parkway, between I-15 and Fresno Road. Additionally, Class II bike lanes are proposed along Central Road near the Project site, and along Lafayette Street from Dale Evans Parkway to Central Road.

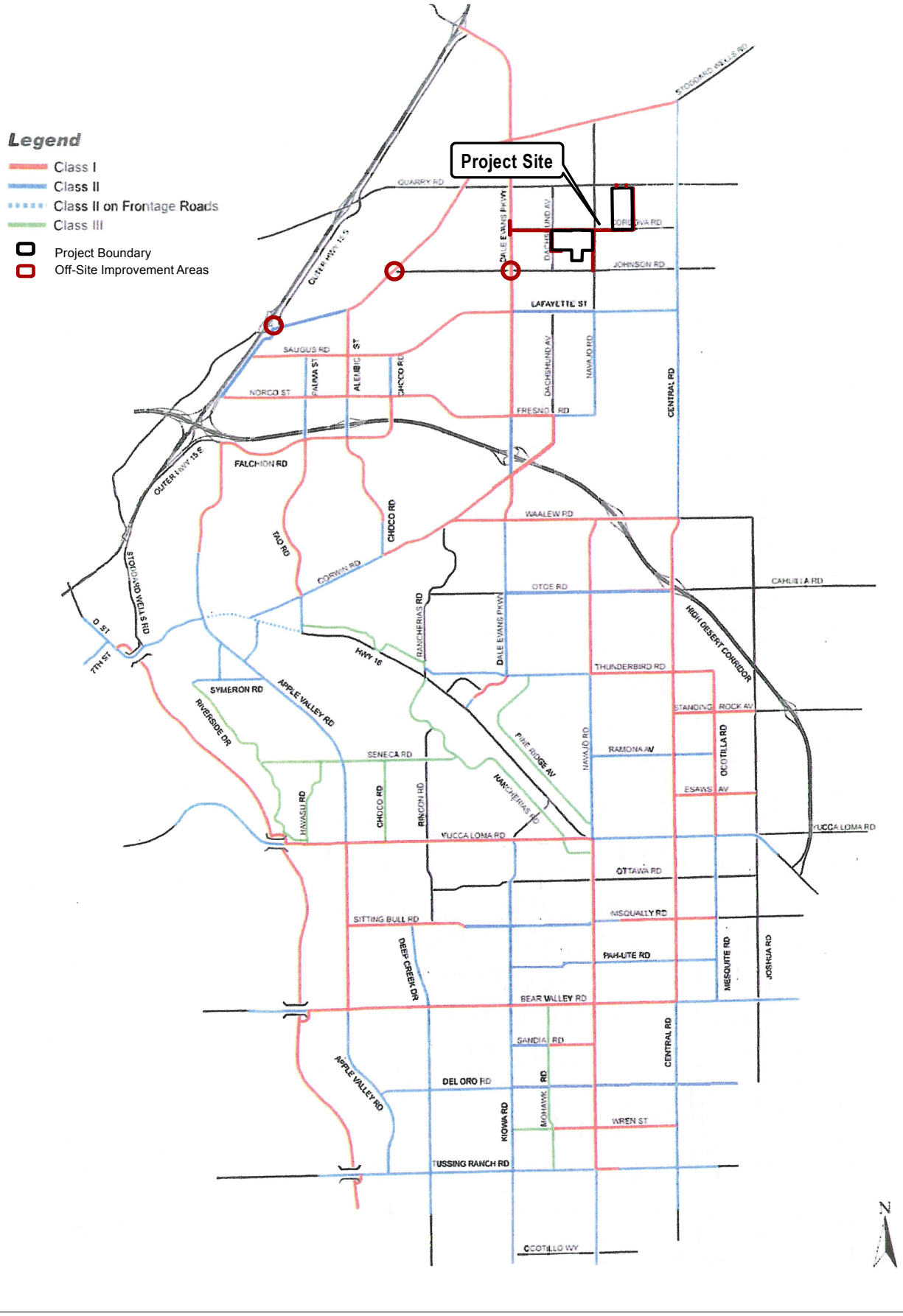
Vehicle Miles Traveled

The SBTAM was used to estimate Project-generated VMT for both baseline (2016) and horizon-year (2040) scenarios. The SBCTA recommends the SBTAM for conducting VMT analysis for land use projects within the region as it considers interaction between different land uses based on socioeconomic 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 Associate 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.

Project-generated VMT has been estimated using the Origin/Destination (O/D) method and Boundary method. The OD method for calculating VMT sums all weekday VMT generated by trips with at least one trip-end in the study area and tracks those trips to their origin or destination. Origins are all vehicle trips that start in a specific traffic analysis zone, while destinations are all vehicle trips that end in a specific traffic analysis zone. The OD method accounts for all trips (i.e., both passenger cars and trucks) and trip purposes (i.e., total VMT) and therefore provides a more complete estimate of VMT. The boundary method is the sum of all weekday VMT on the roadway network within a designated boundary (i.e., Town boundary or other designated geographic area). The boundary method estimates VMT by multiplying vehicle trips on each roadway segment within the boundary by that segment's length. This approach consists of all trips, including those trips that do not begin or end in the designated boundary.

Consistent with the Town's VMT Guidelines, the Project's VMT has been presented as total VMT and total VMT per service population.[1] Total VMT represents all VMT generated in 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 would exceed the Town's General Plan Buildout VMT per service population. As further discussed in Section 4.11.4, 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 Project impacts.

[1] Service population is the population and employment of a given zone of study.



SOURCE: Town of Apple Valley 2009

FIGURE 4.11-5

Proposed Bike Facilities

Cordova Complex and Quarry at Pawnee Warehouse Project

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4.11.2 Regulatory Framework

Federal

There are no federal regulations pertaining to transportation that would apply to the Project.

State

Senate Bill 743

On September 27, 2013, Governor Brown signed Senate Bill (SB) 743, which became effective on January 1, 2014. SB 743 streamlines the review under the California Environmental Quality Act (CEQA) process for several categories of development projects, including the development of infill projects in transit priority areas (TPA) 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 (Public Resources Code [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 TPA shall not be considered significant impacts on the environment. VMT replaced the use of level of service (LOS) to evaluate traffic impacts in CEQA documents, as required under SB 743 to develop alternative metric(s) for determining impacts relative to transportation.

Pursuant to SB 743, the Office of Planning and Research (OPR) released revised CEQA Guidelines 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" (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.

The revised CEQA Guidelines were adopted and use of VMT as the new metric to evaluate transportation impacts was implemented statewide on 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 (see Appendix C).

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 (GHG) 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 GHG 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 periodically reviews and updates the targets, as needed.

Each of California's MPOs must prepare a Sustainable Communities Strategy (SCS) as an integral part of its Regional Transportation Plan (RTP). The SCS contains land use, housing, and transportation strategies that, if implemented, would allow the region to meet its GHG emission reduction targets. Once adopted by the MPO, the RTP/SCS guides the transportation policies and investments for the region. The 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 GHG targets. 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.

Regional

Southern California Association of Governments Regional Transportation Plan/Sustainable Communities Strategy

The 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 Apple Valley. Priorities of the plan include increasing investment in transit and investing in transportation strategies and projects that would result in improved air quality, public health, and reduced GHG 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 2020) 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 the County, including within Apple Valley.

San Bernardino County Congestion Management Plan

The Project is located in the County and therefore, the SBCTA Congestion Management Plan (CMP) is applicable (SANBAG 2016). To address the increasing public concern that traffic congestion is impacting the quality of life and economic vitality of the state, 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 the County. Although implementation of the CMP was made voluntary by the passage of AB 2419 (Bowler 1996), the CMP requirement has been retained in the 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 the Town, and those segments of the local transportation system that interface with, and serve as extensions of, the regional roadway system connecting the Town 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's 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 4.11-1 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).

Table 4.11-1. Apple Valley General Plan Recommended Improvements

Roadway	Recommended Improvement
I-15	▪ A future interchange at I-15 and Quarry Road
Outer I-15	▪ Extend Outer I-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-foot ROW)
Stoddard Wells Road	▪ Between I-15 Freeway and Alembic Street – upgrade from Major Road (104-foot ROW) to Major Divided Arterial (128-foot ROW) ▪ between Alembic Street and Johnson Road – upgrade from Major Road to Major Divided Arterial
Quarry Road	▪ Between I-15 Freeway and Stoddard Wells Road – upgrade from Secondary Road (88-foot ROW) to Major Divided Arterial (128-foot ROW) ▪ Between Stoddard Wells Road and Dale Evans Road – upgrade from Secondary Road (88-foot ROW) to Major Divided Arterial (128-foot ROW)
Johnson Road	▪ East of Central Road – change from Major Road to Secondary Road (88-foot ROW)

Source: Town of Apple Valley 2009.
Notes: ROW = right-of-way.

North Apple Valley Industrial Specific Plan

The Project site is located within the NAVISP. The NAVISP was prepared by the Town of Apple Valley to establish long-term development goals, standards and guidelines for 6,220 acres including and surrounding the airport in the northern portion of the Town. Figure 4.11-6 presents the Circulation Map of the NAVISP. The boundaries include Langley Road on the north, Waalew Road on the south, Dale Evans Parkway on the west, and Central Road and Joshua Road on the east. The primary land uses envisioned in this area are industrial and commercial land uses, which will provide the Town with long-term economic growth and vitality, job growth, and revenue.

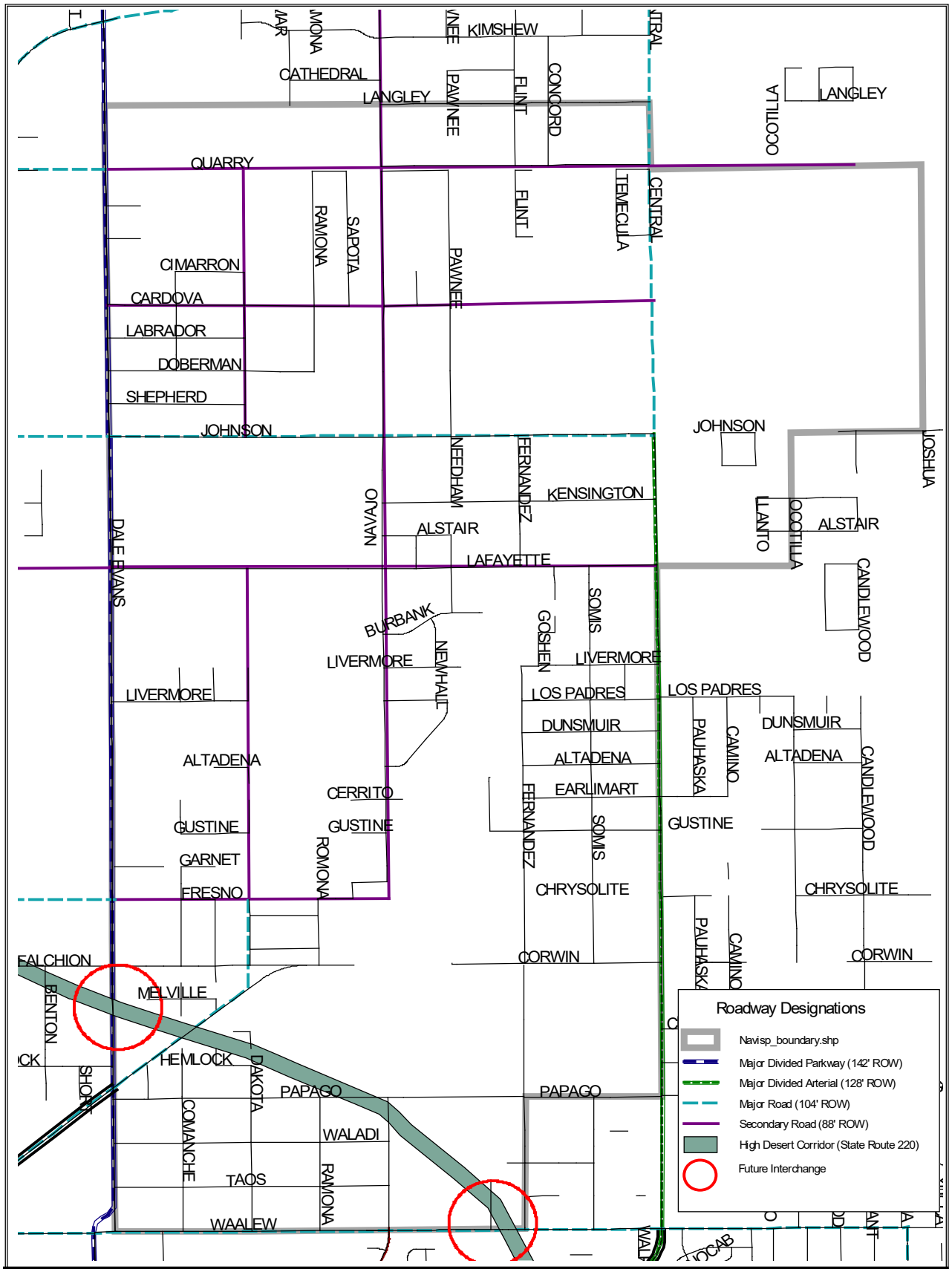
The NAVISP is consistent with the Apple Valley General Plan and implements the goals of the General Plan related to the Airport Influence Area. Implementation of the NAVISP is not expected to require amendments to the General Plan Circulation Element. The current Circulation element provides adequate access and roadway capacity for the buildout of the Specific Plan and the Town General Plan and projected regional growth (Town of Apple Valley 2012).

Per state law, the NAVISP is required to demonstrate its consistency with the Towns General Plan, and includes the following applicable goals and policies consistent with the General Plan Circulation Element:

Goal C-2.2. Develop a circulation plan and programs which are financially, technically, and legally implementable, both at the local and regional level.

Goal C-3. Develop a circulation system which supports the comprehensive goals of the Town, which is integrated with land use planning, and which ensures that the system is responsive to the needs of the community.

Policy C-3.3. Design and construct transportation corridors that are easy to follow and meet traffic safety standards.



SOURCE: Town of Apple Valley 2012

FIGURE 4.11-6

North Apple Valley Industrial Specific Plan Circulation Map

Cordova Complex and Quarry at Pawnee Warehouse Project

DUDEK

Town of Apple Valley Development Impact Fee Program

It is the Project's responsibility to implement needed Project improvements to the Town's satisfaction either through a combination of fee payments to established programs (e.g., Development Impact Fee program), construction of specific improvements, payment of a fair share contribution toward future improvements or a combination of these approaches. When off-site improvements are identified with a minor share of responsibility assigned to the proposed development, the approving jurisdiction may elect to collect a fair share contribution or require the development to construct improvements. Improvements included in a defined program and constructed by the development may be eligible for a fee credit or reimbursement through the program where appropriate (to be determined at the Towns discretion).

The Town of Apple Valley 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 identified in the Town's General Plan Circulation Element. The Town's DIF includes Transportation Impact Fees.

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. Payment of the requisite DIF fees at the rates then in effect pursuant to the DIF Program will reduce its deficiencies to DIF-funded facilities. The timing to use the DIF fees is established through periodic capital improvement programs which are overseen by the Town's Public Works Department.

4.11.3 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:

A. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.
B. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).
C. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
D. Result in inadequate emergency access.
E. Result in cumulatively considerable impacts related to transportation.

4.11.4 Impact Analysis

This section contains an evaluation of potential environmental impacts associated with the Project related to transportation. The section describes the methods used in conducting the analysis and evaluates the Project's impacts and contribution to significant cumulative impacts, if any are identified.

Methodology

Programs, Plans, Ordinances, and Policies

The Project was analyzed for its potential to conflict with the programs, plans, ordinances, and policies listed in Section 4.11.2, Regulatory Framework, under Threshold A.

Vehicle Miles Traveled

In accordance with SB 743, the Town adopted Resolution No 2021-08 (May 11, 2021), requiring that VMT replace LOS, and other similar measures for determining significant impacts under CEQA (Town of Apple Valley 2021). A project-level VMT analysis has been completed for the Project following the Town's Resolution under Threshold B. The San Bernardino County Guidelines have also been referenced for further guidance.

This includes the following general steps:

1. **VMT Screening and Qualitative Review.** The first step is to determine when a VMT analysis is required. Consistent with OPR's Technical Advisory, projects that meet certain screening thresholds based on their size, location and land use may be presumed to result in a less than significant transportation impact. For example, projects located within a TPA or a low-VMT-generating traffic analysis zone (TAZ) (subject to additional secondary screening criteria) and absent substantial evidence to the contrary are anticipated to result in a less than significant impact and can be screened from further analysis.
2. **VMT Analysis Methodology.** If a project is not screened from requiring a project-level VMT analysis, the SBTAM model is used to estimate a project's VMT. This analysis includes the project generated VMT and project effect on VMT estimates for the project TAZ.
3. **VMT Impact Thresholds.** The Town uses VMT per service population for its impact threshold. A project would result in a significant impact if either of the following conditions are satisfied:
    - The baseline project-generated VMT per service population exceeds the Town's General Plan Buildout VMT per service population, or
    - The cumulative project-generated VMT per service population exceeds the Town's General Plan Buildout VMT per service population

    The project's effect on VMT would be considered significant if it resulted in either of the following conditions to be satisfied:
    - The baseline link-level boundary Town-wide VMT per service population increases under the plus project condition compared to the no project condition, or
    - The cumulative link-level boundary Town-wide VMT per service population increases under the plus project condition compared to the no project condition.
4. **VMT Mitigation.** The types of mitigation that affect VMT are those that reduce the number of single-occupant vehicles generated by a project. Mitigation can be accomplished by altering the proposed land uses, by implementing transportation demand management (TDM) measures, or participating in a VMT fee program and/or VMT mitigation exchange/banking program.

Hazardous Features (Safety Analysis)

Hazardous features (safety) were evaluated under Threshold C and evaluates whether the Project would substantially increase hazards due to a geometric design feature or incompatible use. The Traffic Impact Analysis

prepared for the Project included an analysis of site access and proposed roadway and frontage improvements needed to provide adequate access to each site.

Emergency Access

The emergency access analysis was evaluated under Threshold D and evaluates whether the Project would comply with the Town's emergency access and/or evacuation requirements including those imposed by the Fire Department.

Impacts

Threshold A: Would the Project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

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.

Southern California Association of Governments Regional Transportation Plan/Sustainable Communities Strategy

Table 4.9-1 in Section 4.9, Land Use and Planning, provides an analysis of the Project's potential to conflict with SCAG's 2020-2045 RTP/SCS or Connect SoCal Plan. As demonstrated in Table 4.9-1, the Project would not conflict with the 2020–2045 RTP/SCS.

San Bernardino County Congestion Management Plan

The Project would not conflict 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 minimize impacts to travel delay and improve connections to the local street network. The Project would also participate in the Town's Development Impact Fee program, which is coordinated with and provides funding for regional planning efforts in Victor Valley as part of the CMP. 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 Circulation Element

The Project would be consistent with the applicable goals and policies of the Town's 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 use local residential streets for access or parking needs. 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 are no future multimodal facilities planned near the Project site. 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, which helps fund transportation-related improvement

projects that meet the goals of the General Plan Circulation Element. Therefore, the Project would not conflict with the Town's General Plan Circulation Element.

North Apple Valley Industrial Specific Plan

The Project would be consistent with the applicable goals and policies of the NAVISP, which as noted previously is also required to be consistent with the General Plan. The Project is consistent with the primary land uses envisioned in the Specific Plan, including industrial and commercial land uses, which would provide the Town with long-term economic growth, job growth, and revenue. The Project would not conflict the NAVISP's goals and policies related to developing a circulation plan and programs which are financially, technically, and legally implementable, developing a circulation system which supports the comprehensive goals of the Town, and designing and constructing transportation corridors that are easy to follow and meet traffic safety standards. As noted above, the Project includes off-site roadway improvements to minimize impacts to travel delay and improve connections to the local street network. 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. Therefore, the Project would not conflict with the NAVISP.

Pedestrian and Bicycle Access

The Town's Recreation Trail Map and Bike Paths per the General Plan Circulation Element are presented in Figure 4.11-4 and Figure 4.11-5, as discussed in Section 4.11.1, Existing Conditions. The Project site is located in a rural area of the Town, with limited pedestrian and bicycle facilities provided. Where new development has occurred, sidewalks have typically been constructed along site frontages (e.g., Victor Valley Community College located near the southwest corner of the Navajo Road and Johnson Road). No pedestrian facilities, including curbs and sidewalks, are present along the existing roads in the immediate vicinity of the Project site, including Quarry Road, Dale Evans Parkway, Johnson Road, or Central Road. The Project would include construction of pedestrian facilities (e.g., curb and gutter) along all Project frontages, including Cordova Road, Dachshund Avenue, and Navajo Road. Additionally, as the adjacent areas surrounding the Project site continue to be developed, connectivity to other areas of the Town would be realized. Therefore, the Project would have a less-than-significant impact on pedestrian and bicycle access.

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.

Vehicle Miles Traveled Screening

The San Bernardino County Transportation Impact Study Guidelines (San Bernardino County 2019) 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 square feet
- 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/SCS

The 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 C, the Cordova Complex warehouse would generate 5,173 daily passenger car equivalent (PCE) trips and the Quarry at Pawnee warehouse would generate 4,849 daily PCE trips. Therefore, the Project does not meet this screening criterion based on its proposed size and land use.
- **Projects located within a TPA.** Projects located within a TPA as determined by the most recent SCAG RTP/SCS. The Project site is not located within ½ mile 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 would reduce VMT per person/employee and is beneficial to the region. As presented in Appendix C, the TAZ 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 and does not meet this screening criterion.

Vehicle Miles Traveled 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. The VMT analysis is calculated based on employee estimates. Using an employment density factor of 2,111 square feet per employee (SCAG 2001), the Cordova Complex warehouse would support an estimated 739 employees, and the Quarry at Pawnee warehouse would support an estimated 730 employees, for a Project total of approximately 1,469 employees.[2] Based on the Town's significance thresholds, described above, a significant impact would occur if Project-generated VMT per service population exceeds the Town's General Plan Buildout VMT per service population.

Table 4.11-2 presents the outcome of the Project-generated VMT analyses for the baseline and horizon-year scenarios. As shown in the table, in both the baseline and horizon-year scenarios, the VMT-per-service-population metric for the Project is less than the Apple Valley General Plan buildout significance threshold.

[2] The transportation modeling assumed a slightly larger project resulting in a more conservative analysis.

Table 4.11-2. Project-Generated VMT Analysis

Metric	2016 (Baseline)		2040 (Horizon Year)	
	Quarry at Pawnee	Cordova Complex	Quarry at Pawnee	Cordova Complex
Population	0	0	0	0
Employment[1]	730	739	730	739
Service Population	730	739	730	739
OD VMT[2]	23,469	23,766[4]	22,310	22,580[4]
OD VMT per Service Population	32.2	32.2	30.6	30.6
General Plan Buildout VMT per Service Population (Threshold)[3]	*33.2*	*33.2*	*33.2*	*33.2*
Threshold Exceeded?	**No**	**No**	**No**	**No**

Source: David Evans and Associates 2023a, 2023b (see Appendix C).
Notes:
[1] Source: SCAG 2001 (estimated using an employment density factor of 2,111 square feet per employee).
[2] The Project's OD VMT derived from the SBTAM.
[3] Source: SBCTA VMT Screening Tool (https://www.gosbcta.com/vmtscreening)
[4] Calculation assumed an average trip length of 30 miles for the additional 9 employees at the Cordova Complex warehouse. This was added to the VMT calculated by the model for the Quarry at Pawnee warehouse. Source of analysis: General Technologies and Solutions.

Table 4.11-3 presents the outcome of the analysis of the Project's effect on roadway VMT within the Town. The SBTAM model was used to estimate the VMT on all roadways within the Town limits for the baseline and horizon-year scenarios with and without the Project. Using the resulting Town-wide VMT, the metric indicating a significant impact (VMT per service population) at a Town-wide scale was calculated. Based on the Town's significance thresholds, described above, a significant impact would occur if Town-wide VMT per service population increases under the plus Project condition compared to the no Project condition. Table 4.11-3 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 would not increase and therefore does not meet the Town's significance threshold described above. This is due to employment opportunities generated within the Town that were not there before implementation of the Project. The proposed Project captures employment that previously went outside of the Town to nearby cities such as Victorville or Barstow.

Table 4.11-3. Project Effect on Roadway Vehicle Miles Traveled within Town of Apple Valley

Metric	2016 (Baseline)		2040 (Horizon Year)	
	With Project	Without Project	With Project	Without Project
Roadway VMT[1]	854,224	847,823	1,364,732	1,362,981
Service Population[2]	91,852	91,113	127,545	126,806
VMT per Service Population	9.3	9.3	10.7	10.7

Source: David Evans and Associates 2023a, 2023b (see Appendix C).
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.

Conclusion

In summary, as shown in Table 4.11-2 above, the Project's VMT per service population would be less than the VMT per service population representing buildout of Apple Valley's General Plan and, thus, the Project would not cause a significant impact based on the Town's adopted significance thresholds for Project-generated VMT. In addition, as shown in Table 4.11-3 above, Town-wide VMT per service population would not increase with implementation of the Project and, thus, the Project would not cause a significant impact based on the Town's adopted significance thresholds for a project's effect on Town-wide VMT. Therefore, the Project would have a less-than-significant impact related to conflicts or inconsistency with CEQA Guidelines Section 15064.3(b).

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. Access to the Cordova Complex site would be via Dachshund Avenue to the west, Navajo Road to the east, and Cordova Road to the north (see Figure 3-4 in Chapter 3, Project Description). Two driveways would be provided from Dachshund Avenue, 27 feet and 40 feet in width. Two driveways would be provided from Navajo Road, both 40 feet in width. Three driveways would be provided from Cordova Road, 27 feet, 40 feet, and 52 feet in width. Access to the Quarry at Pawnee site would be via Flint Road along the eastern site boundary and Cordova Road at the southwestern corner of the site (see Figure 3-5 in Chapter 3, Project Description). Three driveways would be provided from Flint Road (two at 40 feet wide and one at 36 feet wide) and one driveway would be provided from Cordova Road (40 feet wide).

To facilitate adequate on-site circulation, sufficient site access for both passenger vehicles and trucks, and efficient off-site circulation on nearby roadway facilities, the Project would include the following off-site roadway improvements, as shown on Figure 3-7 in Chapter 3, Project Description:

- **Dale Evans Parkway.** The Project would include the widening of Dale Evans Parkway from 12 feet to 20 feet at its intersection with Cordova Road to construct a 12-foot left-turn lane for 660 feet north of the intersection, and a 12-foot right-turn lane for 360 feet south of the intersection.
- **Cordova Road.** The Project would include the construction of Cordova Road starting at the eastern edge of the existing pavement surface at its intersection with Dale Evans Parkway and extending to its intersection with Flint Road. The improvements to Cordova Road would span both Project sites, for a total length of 6,625 feet.
- **Dachshund Avenue.** The Project would include construction of Dachshund Avenue extending for a length of 1,325 feet between the southern ROW boundary of Cordova Road and the southern ROW boundary of Doberman Street.
- **Navajo Road.** The Project would include construction of Navajo Road, starting at its intersection with Cordova Road and extending to its intersection with Johnson Road for a total length of 2,554 feet.
- **Doberman Street.** The Project would include extension of Doberman Street into Doberman Road, which would span a length of approximately 990 feet from the Doberman Street/Dachshund Avenue intersection to the east and terminating in a cul-de-sac, along the southwestern edge of the Cordova Complex site.
- **Flint Road.** The Project would include construction of Flint Road extending from the southern ROW of Quarry Road to the southern ROW of Cordova Road along the eastern boundary of the Quarry at Pawnee site.

In addition, as conditions of approval, the Town requires off-site intersection improvements at Dale Evans Parkway/Johnson Road, Stoddard Wells Road/Johnson Road, and Stoddard Wells Road/I-15 Northbound Ramps (see Table 3-1 in Chapter 3, Project Description). All of these improvements would be within existing rights-of-way. As the Project continues through design review, detailed roadway improvements would 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. The Project would implement all recommended roadway improvements which would be made conditions of Project approval. This includes payment of a fair share contribution for off-street-network improvements and traffic impact fees for impacts on the Town's Development Impact Fee Program's street network (see Table 4.11-1).

Threshold D: Would the Project result in inadequate emergency access?

Less-than-Significant Impact. Based on the findings of the traffic impact analyses (Appendix C), it was noted that the Apple Valley Fire Department would require a secondary paved access road to the Project site, specifically to serve the Cordova Complex from an existing paved street. As part of the proposed roadway improvements, Navajo Road would be extended to Johnson Road and would accommodate two 12-foot-wide travel lanes, consistent with the General Plan. Therefore, the road extension would serve as a secondary access road for emergency vehicles and meet the requirements of the Fire Department. Furthermore, 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 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.

The Project would be required to maintain emergency access to the site at all times during construction. This may include temporary access roads/and or driveways that meet all applicable standards of the Fire Department. During Project construction, all staging areas would be located within the Project site boundaries and would be located to not block any egress or ingress points. Construction of some of the Project's roadway and utility improvements within the public right-of-way may require partial road closures or access limitations on a temporary and periodic basis during the construction period. Encroachment permits would need to be obtained from the Town for construction and/or excavation done within the public right-of-way. The issuance of encroachment permits by the Town requires that a traffic control plan be submitted for work on any major road or near any school or business, which includes provisions for emergency access. Implementation of these plans and requirements would ensure that access for emergency vehicles would be maintained during construction. Given the above, the Project would have a less-than-significant impact on emergency access during construction and operation.

Threshold E: Would the Project result in cumulatively considerable impacts related to transportation?

The geographic scope of the cumulative transportation analysis consists of the Town, including the Project site and areas along various public roadways that would support Project traffic and access to the Project site. In the Project-level analyses above, 2040 conditions represent a long-range forecast for addressing the cumulative impacts of regional growth in traffic as determined through traffic forecasts from the SBTAM. The horizon-year scenario in the Project-level analyses above represents a long-range forecast for addressing the cumulative impacts of regional growth in traffic up to the year 2040. Growth in traffic is from forecasts prepared by the SBTAM. As described under the above discussion for Threshold A and examined in Section 4.6, Greenhouse Gas Emissions, and Section 4.9, Land Use and Planning, the Project would not conflict with plans addressing the Town's circulation system and would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities:

Therefore, cumulative impacts related to conflicts with a program, plan, ordinance, or policy addressing the circulation system would be less than significant.

As presented in Table 4.11-2 above, in the horizon-year scenario (which accounts for future cumulative growth in the area), the VMT per service population for the Project is less than the Town'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 4.11-3, shows that the VMT per service population under the "with Project" conditions compared to the metric under the "without Project" conditions in the horizon-year scenario would not increase and therefore would not meet the Town's threshold for a significant impact. Thus, the Project would result in less-than-significant cumulative impact on VMT.

Impacts related to hazardous design features and modifications to emergency access are largely confined to a specific project site, thus the Project's site-specific design hazard and emergency access impacts would not combine with other cumulative projects and there would be no cumulative impact.

4.11.5 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 related to conflicts with 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(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 or incompatible uses. 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.

4.11.6 References

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4.12 Utilities and Service Systems

This section describes existing conditions related to utilities and service systems, identifies associated regulatory requirements, evaluates potential project and cumulative impacts, and identifies mitigation measures for any significant or potentially significant impacts related to implementation of the Cordova Complex and Quarry at Pawnee Warehouse Project (Project).

No comments regarding utilities and service systems were received during the scoping period for this environmental impact report (EIR). All scoping comment letters received are provided in Appendix A.

The analysis is based on a sewer capacity study prepared by David Evans and Associated dated May 2023 (Appendix M), hydrology technical reports also prepared by David Evans and Associates dated October 31, 2022 and November 1, 2022 (for each development site; Appendix I), an electrical supply engineering analysis report prepared by Southern California Edison dated August 11, 2023 (Appendix N), and a water supply assessment (WSA) prepared by Dudek dated July 2023 (Appendix K).

4.12.1 Existing Conditions

Water

Water Supply

Water supply for residential, commercial, and industrial land uses in the Town of Apple Valley (Apple Valley or Town) is provided by Liberty Utilities which serves an area encompassing approximately 50 square miles (Liberty Utilities 2021). In 2020, Liberty Utilities obtained 100% of its water from groundwater through 18 deep wells located throughout the service area. In addition, Liberty Utilities provides water for agricultural purposes from separate groundwater wells. The potable water wells draw water from the deep Alto Subarea of the Upper Mojave River Valley Groundwater Basin (also referred to as the Mojave River Basin, Mojave Basin, or Basin), which is recharged primarily from snowmelt from the San Bernardino Mountains to the south and the Mojave River to the west.

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 (DWR) as having a very low priority as it relates to prioritizing completion of a Groundwater Sustainability Plan (GSP) (DWR 2020).

Liberty Utilities also purchases imported State Water Project water but does not directly resell it to retail customers. Rather, Liberty Utilities partners with the Mojave Water Agency and other regional retail water purveyors to use imported State Water Project water to replenish the groundwater basin by recharging the Alto Subarea 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 4.12-1, 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 that factor in the effects of water demand reduction (conservation) measures that would be implemented during drought conditions (Liberty Utilities 2021).

Table 4.12-1. Water 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 vacant, undeveloped land, with no existing water demand at either the Cordova Complex site or Quarry at Pawnee site.

Water Infrastructure

Liberty Utilities' existing water distribution system includes approximately 475 miles of underground pipelines. There is an existing 8-inch diameter water line approximately 1,500 feet west of the intersection of Johnson Road and Central Road running along Johnson Road that is the closest to the Project site.

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 9 sewer lift pump stations. The Town is a member of the joint powers agency, Victor Valley Wastewater Reclamation Authority (VVWRA). VVWRA 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 2023). The Apple Valley Subregional Water Recycling Facility, located at Brewster Park (approximately 4 miles south of the Project site), was completed in 2018. It can produce 1 mgd of recycled water, which is used to irrigate Brewster Park and Civic Center Park.

Existing Wastewater Generation

The Project site is undeveloped with no wastewater currently generated from either the Cordova Complex site or Quarry at Pawnee site.

Stormwater Drainage

The Project site is undeveloped land with no current stormwater collection facilities located on site. The southerly portion of the Cordova Complex site is within the Walmart Distribution Center's (approximately 0.1 mile to the south) off-site watershed where stormwater flows south westerly towards Johnson Road with its confluence with the Apple Valley Master Plan of Drainage (AVMPD) line E- 04, which flows through the Walmart Distribution Center south of Johnson Road and then flows south towards a dry lakebed south of the Apple Valley Airport (Appendix I-1). Currently, stormwater flows generated from the Quarry at Pawnee Project site flow to the west off site across multiple flow paths towards the unimproved Bell Mountain Wash (Appendix I-2).

Solid Waste

The collection, transport, and disposal of solid waste and recyclables from business and residential uses in the Town are provided by Burrtec Waste Industries, Inc.'s AVCO Disposal (Burrtec). After waste is collected, it is delivered to the Victor Valley Materials Recovery Facility for sorting, located at 17000 Abbey Lane in Victorville, approximately 8 miles southwest of the Project site. The waste requiring disposal after sorting is collected and hauled to the Victorville Sanitary Landfill, which is approximately 5.5 miles west of the Project site.

The Victorville Sanitary Landfill is located at 18600 Stoddard Wells Road in Victorville. This landfill is owned and operated by the County of San Bernardino Solid Waste Management Division. The Victorville Sanitary 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 (i.e., approximately 85% remaining capacity). As of the most recent facility capacity evaluation in 2020, this landfill was expected to remain open until 2047 (CalRecycle 2023d).

Construction waste is typically disposed of at landfills that accept materials such as soil, concrete, asphalt, and other construction debris. San Bernardino County has two landfills that accept construction waste, the Victorville Sanitary Landfill and the Chino Valley Rock Landfill (County of San Bernardino 2020). The Chino Valley Rock Landfill is located at 13434 Ontario Avenue in Ontario, approximately 45 miles to the 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 Project site is undeveloped with no solid waste currently being generated at either the Cordova Complex site or Quarry at Pawnee 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-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. 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 (CAISO 2023).

As the Project site is currently undeveloped, there is no electrical infrastructure or use currently at either the Cordova Complex site or Quarry at Pawnee site although overhead power lines are present along Navajo Road, to the south.

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 (Town of Apple Valley 2021).

As the Project site is currently undeveloped, there is no consumption of natural gas and no underground gas pipelines on site.

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 (for the Walmart Distribution Center approximately 0.1 mile to the south), it is anticipated that telecommunication lines would be extended onto the Project site from the closest connection point.

4.12.2 Regulatory Framework

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 governs 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 the CIWM Board 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. Since 2020, there is no publicly available information (on-line) on how well the state has done collectively to meet the 75% diversion goal.

Senate Bill 1374: Construction and Demolition Waste Reduction

Senate Bill (SB) 1374 requires that annual reports submitted by local jurisdictions to CIWM Board include a summary of the progress made in the diversion of construction and demolition waste materials. In addition, SB 1374 requires the CIWM Board 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 CIWM Board'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. Since 2020, Burrtec and the Town continued to implement the Apple Valley Mandatory Commercial Recycling Plan with the goal of promoting extensive commercial and multifamily recycling programs.

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 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. Liberty Utilities had a target of 238 gallons per capita per day for 2020 and exceeded that goal by having an actual value of 146 gallons per capita per day.

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. SGMA 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 DWR 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. Applicable provisions of SGMA depend on basin prioritization as determined by DWR; SGMA requires GSPs to be developed for high- and medium-priority basins. As the DWR has classified the Upper Mojave River Valley Groundwater Basin as a very-low-priority basin, a GSP is not required and has not been prepared.

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 (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, single-dry-year, and multiple-dry-year scenarios in a UWMP. UWMPs must be updated and submitted to the DWR every 5 years for review and approval. The Project site is within the area addressed by the Liberty Utilities 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 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 a project 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 historical water demands and a projection of future water demands based on forecasted development of the remaining developable lands within the Town's water service area (Appendix K).

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 DWR 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 typically updated every three years. The latest version (CALGreen 2019) became effective on January 1, 2023.

Mandatory CALGreen standards pertaining to water, wastewater, and solid waste include the following (Titel 24 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 DWR's Model Water Efficient Landscape Ordinance.
- Diversion of 65% of construction and demolition waste from landfills.

Regional

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 BMPs (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. Future substantive updates shall be submitted to the Lahontan RWQCB for review and approval, prior to implementation.

County of San Bernardino Integrated Waste Management Plan

The County of San Bernardino prepared the *Countywide Integrated Waste Management Plan* (County of San Bernadino 2018) pursuant to the requirements of the CIWM Act (described above under State regulations). The *Countywide Integrated Waste Management Plan* consists of four elements and a Summary Plan. Each jurisdiction in the County prepared the first three elements comprised of the: (1) Source Reduction and Recycling Element, which analyzed the local waste stream to determine where to focus diversion efforts and develop diversion programs and funding; (2) Household Hazardous Waste Element, which provides a framework for recycling, treatment, and disposal practices; and (3) Nondisposal Facility Element, which lists planned and existing facilities such as materials recovery facilities and composting facilities that recover waste from the waste stream.

Local

Town of Apple Valley General Plan

The Energy and Mineral Resources and Water, Wastewater, and Utilities Elements of the Town's General Plan contain the following goals and policies pertaining to energy for the Project (Town of Apple Valley 2009).

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.

4.12.3 Thresholds of Significance

The significance criteria used to evaluate Project impacts related 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 stormwater 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 related to utilities and service systems.

Issues Not Further Discussed

Based on the analysis in the Initial Study (see Appendix A), all of the significance criteria identified above were found to be potentially significant and are therefore addressed below in the impact analysis.

4.12.4 Impact Analysis

This section contains an evaluation of potential environmental impacts associated with the Project related to utilities and service systems. The section describes the methods used in conducting the analysis and evaluates the Project-specific impacts and contribution to significant cumulative impacts, if any are identified.

Methodology

Water Supply

The analysis of water supply impacts is primarily based on the WSA that was prepared for the Project by Dudek dated July 2023 (Appendix K). In addition, the available and projected water supplies and regional demands is based on the 2020 UWMP that was prepared by Liberty Utilities as part of their long-term management planning and legal requirements (Liberty Utilities 2021).

In order to define a water demand for operation and maintenance of the Project during the anticipated operational life, water demands from three different area businesses were used to develop an average water use per square foot (Table 4.12-2). With this approach, the water demands for the Project were estimated at 54 AFY for the Cordova Complex site and 38 AFY for the Quarry at Pawnee site for a Project total of 92 AFY.

Table 4.12-2. Water Usage for Example Warehouses

Business	Size (square feet)	Water Usage (gallons per day)	Gallons per Day per Square Foot
Big Lots	1,360,875	673	0.0005
Fresenius Medical Blue	150,000	378	0.003
Walmart DC	1,080,000	29,920	0.03

Source: Appendix K.

Table 4.12-3 shows the three different water use rates applied to the Project. 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 of future tenants/uses.

Table 4.12-3. Estimated Water Usage for Project Operation and Irrigation

Project Site	Size (sf)	Operation (gpd/sf)	Operation (gpd)	Operation (AFY)	Operation Average Use (AFY)	Irrigation Use (AFY)	Total Use (AFY)
Cordova Complex	1,559,952	0.0005	780	0.9	20	34	**54**
		0.003	4,667	5.2			
		0.03	46,770	52.4			
Quarry at Pawnee	1,461,240	0.0005	731	0.8	18	20	**38**
		0.003	4,384	4.9			
		0.03	43,387	49.1			
				Total	**38**	**54**	**92**

Source: Appendix K.
Notes: AFY = acre-feet per year; gpd = gallons per day; sf = square feet.

Wastewater Generation

The analysis is based on a sewer capacity study prepared by David Evans and Associates dated May 2023 (Appendix M), and the WSA (Appendix K). Conservatively, the estimated total water demand for the Project as calculated in the WSA (92 AFY) was used as a basis for the total wastewater generation rate, which resulted in a generation rate of approximately 0.082 mgd of wastewater.

Solid Waste Disposal

Anticipated solid waste generation attributable to the Project is shown in Table 4.12-4 and based on estimations that were derived from the air quality modeling that was conducted for the Project's air quality analysis.[1] The solid waste generation rates assume compliance with the California Code of Regulations Title 24, Part 11.

Table 4.12-4. Anticipated Solid Waste Generation

Project Components	Size Metric	Units of Size Metric	Rate	Solid Waste Generation (tons per year)
Unrefrigerated Warehouse – No Rail	1,000 square feet	2,242.84	0.47 tons per 1,000 square feet per year	1,054.1
Unrefrigerated Warehouse – Rail	1,000 square feet	779.45	0.47 tons per 1,000 square feet per year	366.4
			Total	**1,420.5**

Source: Appendix M.
Notes: Conservatively assumes that the Project would achieve at least 50% diversion even though AB 341 requires 75% diversion.

Impacts

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?

Less-than-Significant Impact. The Project would have a less-than-significant impact related to the relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage, electric power, natural gas, or telecommunications facilities, as explained in detail below.

Water Facilities

The Project would involve the construction of on-site water distribution infrastructure (i.e., pipes, valves, meters, etc.) to provide domestic water, firewater, and irrigation to the Project site. The Project is proposed to receive water connecting to an existing water line located along Johnson Road with available connections located west of Navajo Road at the intersection of Quarry and Flint roads. For the Cordova Complex site, 2-inch water lines would be constructed that tie into a new 8-inch water line within Cordova Road that continues east to then serve the Quarry at Pawnee site. For the Quarry at Pawnee site, 2-inch water lines would be constructed that tie into an existing 12-inch water line within Quarry Road and an existing 12-inch water line within the unnamed road to the west of the site.

Construction of the proposed water improvements described above has the potential to cause environmental effects associated with buildout of the Project as a whole. However, construction of the Project's backbone infrastructure, including water pipeline improvements have been considered as part of the Project, and has been accounted for in the other technical sections of Chapter 4 of this EIR. There are no unique impacts associated with the installation of water infrastructure to serve the Project that have not been discussed and accounted for in this

[1] The California Emissions Estimator Model accounted for the differences between car trips and truck trips by dividing the site and characterizing it as an unrefrigerated warehouse with rail connections and without rail connections which results in using these two components for estimations on solid waste generation.

EIR and the Project would not require the relocation of any existing water lines. Therefore, impacts associated with water facilities would be less than significant.

Water Treatment Facilities

Development of the Project would result in an increased water demand and as a result there would be a need for an incremental increase in water treatment. However, 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 based on the fact that the Project is consistent with the underlying land use and zoning designations for the Project site included in the North Apple Valley Industrial Specific Plan and Apple Valley General Plan. In addition, the reliability assessment included as part of the 2020 UWMP indicates that water supply to serve the Liberty Utilities service area meets all regulatory requirements without treatment. Thus, implementation of the Project would not result in the need to expand existing water treatment facilities. Therefore, impacts associated with water treatment facilities would be less than significant.

Wastewater Conveyance Facilities

The Project would construct new sewer lines that would eventually discharge into the existing manhole at the intersection of Johnson Road and Navajo Road. The Project would include 6-inch on-site sewer lines within the Cordova Complex site that would connect to a new 8-inch sewer line within Navajo Road to be constructed as part of the Project. The Project includes 8-inch on-site sewer lines within the Quarry at Pawnee site that would connect to a new 8-inch sewer line within Cordova Road to be constructed as part of the Project. 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 on-site and off-site sewer improvements have been considered as part of the Project and have been accounted for in the other technical sections of Chapter 4 of this 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 EIR. 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. Projected wastewater from the Project would represent approximately 0.77% of the remaining capacity of the treatment facility. Given the remaining capacity of the VVWRA RWWTP, the VVWRA RWWTP would 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, and impacts associated with new wastewater treatment facilities would be less than significant.

Stormwater Drainage Facilities

With the exception of the Walmart Distribution Center south of the Project site, the Project site and a majority of the surrounding area is characterized as rural, undeveloped, vacant land composed of pervious surfaces. Ground surface cover within both the Project site is lightly vegetated with native grasses, shrubs, and a few 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. However, as discussed in Section 4.8, Hydrology and Water Quality, stormwater infiltration and retention/detention basins would be included as LID features as part of the Project.

The 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 on-site retention/detention 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 capture the entire volume generated from a 10-year storm and at least 90% of the 100-year storm, with only very low flows allowed to be discharged off site.

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 have been accounted for in the other technical sections of Chapter 4 of this 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 and Telecommunications

Development of the Project would increase demands for electricity and would increase requirements for telecommunication technology infrastructure. The Project would not use natural gas as a source of energy as noted in Chapter 3, Project Description. Upgrades would be required with respect to electric power and telecommunication facilities because the Project site does not include any on-site electricity or telecommunications services. These utilities would be part of a dry utility package that would be installed within the adjacent public roadways to provide service to the two proposed warehouse facilities. Existing infrastructure is located in the vicinity of the Project site and connection 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. Construction of electrical and telecommunication facilities have been considered as part of the Project and have been accounted for in the other technical sections of Chapter 4 of this EIR.

Electricity would be provided to the Project site by SCE. SCE conducts ongoing monitoring and electrical project development to ensure that it can provide adequate electrical service to the Town, which includes the Project area (California Gas and Electric Utilities 2022). 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 and telecommunications would be adequately served by existing infrastructure and capacity. Therefore, impacts associated with electric and telecommunication 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 warehouse buildings that total 1,559,952 square feet (Cordova Complex) and 1,461,240 square feet (Quarry at Pawnee).

As noted above in the methodology above, water demand for operation and maintenance of the Project during the anticipated operational life was estimated based on water demands from three different area businesses to

determine a total estimated demand of 92 AFY, as shown in Tables 4.12-2 and 4.12-3. Construction water demand is estimated to be short term and relatively insignificant compared to the operational use.

The Project site is undeveloped and thus has no existing water demand, so the net increase in water demand would be equivalent to the Project's estimated water demand of approximately 92 AFY (see Table 4.12-3).

Liberty Utilities' UWMP has planned for growth within its service area over the next 20 years and 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 Project would be accounted for within this growth, as the Project is consistent with the underlying land use and zoning designations for the Project site included in the North Apple Valley Industrial Specific Plan and Apple Valley General Plan.

The UWMP and Project-specific WSA (Appendix K) 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. Upon buildout of the Project, wastewater generated would be conveyed to the RWWTP operated by the 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 (VVWRA 2023). Assuming a conservative wastewater generation rate that is equal to the total water demand as estimated in the WSA (as shown in Table 4.12-3 above), the Project would generate approximately 0.082 mgd of wastewater. Projected wastewater from the Project would represent approximately 0.77% of the remaining capacity of the treatment facility. Given the remaining capacity of the VVWRA RWWTP, the VVWRA RWWTP would have adequate capacity to accommodate the Project's incremental contribution of wastewater.

In addition, Sanitation 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 for a Sanitation District 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, discussed in further detail as follows.

Short-Term Construction Impacts

Construction activities would result in generation of solid waste that would likely include scrap lumber, concrete, residual wastes, packing materials, plastics, and soils. Per CALGreen, at least 65% of all construction and demolition waste is required to be diverted from landfills. In addition, the Town also requires construction and demolition debris 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 construction 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 2020, this landfill had an expected remaining capacity of 93,400,000 cubic yards and was expected to remain open until 2047. The Town has a franchise agreement with Burrtec's AVCO Disposal to be the Town's exclusive solid waste hauler. Therefore, it is not an option to self-haul or use other companies to transport construction debris.

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. As shown in Table 4.12-4, Project operation would result in the generation of an estimated 1,420.5 tons per year of solid waste. 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 Materials 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 (CalRecycle 2023d). Assuming solid waste is collected weekly, the net solid waste that is anticipated to be produced by the Project would equate to approximately 0.004% of the available capacity of the Victorville Sanitary 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 Sanitary Landfill include the Barstow Sanitary Landfill, which is expected to remain open another 51 years, until 2071 (CalRecycle 2023a), and the Landers Sanitary Landfill, which is expected to remain to open another 52 years, until 2072 (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 San Bernardino 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 operation 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 and 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 mentioned above, solid waste collected from the Town is directed to the Victor Valley Materials Recovery Facility, where waste is sorted for recyclable materials. Non-recyclable materials are then 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 operation 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 compliance with solid waste statutes and regulations would be less than significant.

Threshold F: Would the Project result in cumulatively considerable impacts related to utilities and service systems?

Less-than-Significant Cumulative Impact. Per the detailed analyses in the following subsections, the Project, in combination with past, present, and reasonably foreseeable future development, would result in less-than-significant cumulative impacts related to utilities and service systems. The geographic context for the following cumulative impact analyses is the service area of each utility provider, further described below.

Water Supply

As indicated above, the Town, including the Project site, is within the water service Liberty Utilities would provide water service for the Project. The geographic context considered for cumulative impacts related to water supply is the Liberty Utilities service area, encompassing an area of approximately 50 square miles which includes the Town and portions of unincorporated San Bernardino County and is generally bordered by the City of Victorville to the east and the City of Hesperia to the southeast (Liberty Utilities 2021). The Liberty Utilities-Apple Valley 2020 UWMP contains detailed information about the urban water supplier's available supply and demand projections out to 2045. The water demand projections in the UWMP account for cumulative growth over the planning period. As the Project would be consistent with the Project site's zoning and land use designations in the Town's General Plan and North Apple Valley Industrial Specific Plan, potential growth resulting from the Project is within the projections included in the UWMP. 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 25 years (Liberty Utilities 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 2021). As such, the Project, in combination with past, present, and reasonably foreseeable future development, would not be expected to result in water demand that exceeds available supplies causing the need for new entitlements, resources, and/or treatment facilities that are not already being planned to accommodate regional growth forecasts.

Furthermore, new development is required to comply with CALGreen standards, which include a mandatory reduction in outdoor water use in accordance with the DWR Model Water Efficient Landscape Ordinance. This would ensure that the Project would not result in wasteful or inefficient use of limited water resources.

In summary, due to water planning efforts and water conservation standards, Liberty Utilities anticipates that it has adequate water supply to serve cumulative development through the year 2045. Therefore, the Project, in combination with past, present, and reasonably foreseeable future development, would result in a less-than-significant cumulative impact with regard to water supply.

Wastewater

The geographic context considered for cumulative impacts related to wastewater treatment includes the Town's wastewater collection system, as well as the service area of the VVWRA, which includes 279 square miles encompassing Apple Valley, Hesperia, Victorville, Spring Valley Lake, and Oro Grande. The Project, in combination with past, present, and reasonably foreseeable future development, would result in an increase in the amount of wastewater that is being generated in the area and, hence, demand for wastewater treatment. As indicated above, the VVWRA RWWTP has a treatment capacity of 18.0 mgd and currently produces an average flow of 10.7 mgd, and therefore has approximately 40% of remaining capacity. The 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 buildout 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 buildout 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. Therefore, the Project, in combination with past, present, and reasonably foreseeable future development, would result in a less-than-significant cumulative impact related to wastewater treatment capacity.

Solid Waste

The geographic area considered for the analysis of cumulative impacts related to solid waste generation and landfill capacity is the areas served by the Victorville Sanitary Landfill. Construction and operation of the Project and other cumulative development would result in increased solid waste generation that would require disposal in the Victorville Sanitary Landfill. The Project and other cumulative projects would be required to adhere to applicable solid waste regulations, including the CIWM Act and related regulations, which would serve to continue to require reduction, recycling, and reuse to reduce the amount of solid waste sent to landfills. 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, as described above, the Victorville Sanitary Landfill has approximately 85% remaining capacity and is expected to operate until 2047. Therefore, given regulatory requirements related to reuse and recycling, as well as remaining landfill capacity, the Victorville Sanitary Landfill would be expected to have adequate capacity to serve the Project and cumulative development, and cumulative impacts on landfill capacity would be less than significant.

Electric Power and Telecommunications

The geographic study area for analysis of cumulative impacts related to electric power infrastructure is SCE's service area, and related to telecommunications infrastructure is the Town. Development of the Project, as well as other cumulative projects, would increase demands for energy and would increase requirements for telecommunications infrastructure. As stated in Section 4.12.1, 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 the California Public Utilities Commission 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, telecommunication lines would be extended onto the Project site from nearby existing locations within the vicinity of the Project site. Given the nature of telecommunication lines (which are not typically subject to the constraints of existing facilities), once telecommunication lines are extended to the Project site, no additional telecommunication 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, cumulative impacts associated with upgrades of electric and telecommunication facilities would be less than significant.

4.12.5 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 a less-than-significant impact with regard to the relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage, electric power, 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 a less-than-significant impact with regard to the availability of sufficient water supplies to serve the Project and reasonably foreseeable future development during normal, single-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 a less-than-significant impact 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 a less-than-significant impact 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 a less-than-significant impact due 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, in combination with past, present, and reasonably foreseeable future development, would result in less-than-significant cumulative impacts related to utilities and service systems. No mitigation is required.

4.12.6 References

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5 Other CEQA Considerations

Section 15126 of the California Environmental Quality Act (CEQA) Guidelines requires that all aspects of a project must be considered when evaluating its impact on the environment, including planning, acquisition, development, and operation. The environmental impact report (EIR) must discuss (1) significant environmental effects of the proposed project and mitigation measures proposed to minimize the significant effects, (2) significant environmental effects that cannot be avoided if the proposed project is implemented, (3) significant irreversible environmental changes that would result from implementation of the proposed project, (4) growth-inducing impacts of the proposed project, and (5) alternatives to the proposed project.

This chapter summarizes the significant environmental effects that cannot be avoided if the Cordova Complex and Quarry at Pawnee Warehouse Project (Project) is implemented (i.e., significant and unavoidable impacts). It also addresses the significant irreversible environmental changes and growth-inducing impacts of the Project. An evaluation of the significant environmental effects of the Proposed Project, applicable mitigation measures, the level of impact significance before and after mitigation, and evaluation of cumulative impacts, is provided in Chapter 4, Environmental Analysis. Chapter 6, Alternatives, addresses alternatives to the Project.

5.1 Significant and Unavoidable Impacts

Pursuant to CEQA Guidelines Section 15126.2(c), 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, greenhouse gas emissions, and noise. For all other environmental issue areas, the Project would result in either less-than-significant impacts or no impact.

5.1.1 Air Quality

Threshold A. Project operational-source air pollutant emissions would result in exceedances of regional thresholds for emissions of oxides of nitrogen (NO_x) and coarse particulate matter (PM_{10}), primarily associated with mobile source vehicles (about 99.9% of NO_x and PM_{10}), even after implementation of Project Design Features (PDFs). Although many PDFs have been identified that apply to mobile sources and would help to reduce emissions, quantitative reductions from these mobile source PDFs cannot be determined at this time. No additional feasible PDFs or mitigation measures could reduce Project operational emissions to below the Mojave Desert Air Quality Management District (MDAQMD) thresholds for NO_x and PM_{10}. On this basis, the Project is considered to potentially conflict with the Federal Particulate Matter Attainment Plan and Ozone Attainment Plan for the Mohave Desert Air Basin; also on this basis, the operation of the Project would therefore result in a cumulatively considerable net increase of criteria pollutants for which the Project region is non-attainment. Therefore, impacts associated with conflicting with the MDAQMD and increasing criteria pollutants would be significant and unavoidable.

Threshold B. Project operation would result in a significant and unavoidable cumulatively considerable net increase of criteria pollutant emissions for which the Project region is in non-attainment (i.e., NO_x and PM_{10}).

Threshold C. Due to the potential exceedances of MDAQMD significance thresholds for NO_x and PM_{10}, the potential health effects associated with criteria air pollutants are also conservatively considered significant and unavoidable.

Threshold E. Operational-source NO_X and PM_{10} emissions exceedances of applicable MDAQMD regional thresholds would be significant and unavoidable, and thus, cumulatively considerable.

5.1.2 Greenhouse Gas Emissions

Threshold A. The primary sources of greenhouse gas (GHG) emissions associated with the Project are mobile source vehicles and energy. Although many PDFs have been identified that apply to mobile sources, quantitative reductions from these mobile source PDFs cannot be determined at this time and neither the Project Applicant nor the Town can substantively or materially affect reductions in the Project's on-road mobile source emissions beyond what is already required by regulation. Implementation of MM GHG-1 includes the requirement that electricity for the Project be procured through the Apple Valley Choice Energy 100% Renewable Energy Plan, which would reduce long-term GHG emissions. However, even with implementation of PDFs and MM GHG-1, GHG emissions impacts would remain significant and unavoidable on a Project level.

Threshold C. The Project would result in potentially significant impacts with regard to GHG emissions, even after incorporation of a rigorous suite of PDFs. Implementation of MM GHG-1 would reduce the Project's GHG impacts; however, impacts would remain significant and unavoidable, and thus, cumulatively considerable.

5.1.3 Noise

Threshold A. The Project would result in the creation of additional vehicle trips on local roadways (primarily Cordova Road), which could result in increased traffic noise levels at adjacent noise-sensitive land uses. Potential mitigation measures to address significant impacts from traffic noise include use of rubberized asphalt hot mix pavement and off-site noise barriers for the existing residential use adjacent to impacted roadway segments. While such measures may somewhat reduce noise levels, these measures would not sufficiently mitigate the increased noise levels generated by the projected vehicular traffic, particularly from heavy trucks, and would not be feasible to implement. No feasible mitigation measures are available that would result in sufficient reduction of off-site traffic noise to a less-than-significant level. Consequently, Project-related off-site traffic noise impacts at adjacent noise-sensitive land uses would be significant and unavoidable.

Threshold D. Given local noise standards, if the Project's contributions, along with other planned cumulative development, result in noise levels that exceed the established thresholds, the cumulative noise impact would be considered significant. Without feasible mitigation measures that can effectively reduce noise levels below these thresholds, the Project's contribution to cumulative noise impacts from traffic would be cumulatively considerable, and thus, significant and unavoidable.

5.2 Significant Irreversible Environmental Changes

The CEQA Guidelines require that an EIR address any significant irreversible changes that would be caused by implementation of a project. According to CEQA Guidelines Section 15126.2(d), such a change would involve one or more of the scenarios discussed below.

5.2.1 Change in Land Use that Commits Future Generations to Similar Uses

The Project site is within the North Apple Valley Industrial Specific Plan (NAVISP) area and is designated Specific Plan Industrial (I-SP) in the NAVISP. In the Town of Apple Valley (Apple Valley or Town) General Plan, the site is designated Specific Plan (SP) and is also zoned as SP (Town of Apple Valley 2009, 2012, 2022). As discussed in Section 4.9, Land Use and Planning, the Project is consistent with the underlying land use designation and zoning applied by the Town's General Plan and Municipal Code. As such, although construction of the Project would result in the development of a total of over 3 million square feet of warehouse space on the two sites, the Town already committed the area to warehouse (and similar) uses when the Town adopted the NAVISP and designated the site as I-SP within the NAVISP.

Land uses surrounding the Project site primarily consist of vacant, undeveloped land. However, existing and approved large-scale industrial facilities are located in the broader Project vicinity within 2 to 3 miles of the Project site. Commercial and industrial land uses in the Project vicinity are located to the south and include a Walmart Distribution Center, Victor Valley College Regional Public Safety Training Center, Fresenius Medical Care Distribution Center, Big Lots Distribution Center, The Rocks Paintball Spot, and Apple Valley Airport. Since the Project site is located near existing urbanized uses, it would not result in land use changes that would commit future generations to uses that do not already occur in the Project vicinity.

The land use proposed as part of the Project would be consistent with existing development present in the Project vicinity, is consistent with the Town's planning and zoning documents, and would further implement the Town's land use vision for this area. Thus, the Project would not result in land use changes that would commit future generations to uses that do not already occur in the Project area, particularly given that this proposed use is consistent with Town's long-term vision for development of this area and consistent with nearby uses.

5.2.2 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, as discussed in Section 4.7, Hazards and Hazardous Materials, 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 handled with the potential to cause environmental accidents would be transported, used, stored, and disposed of in compliance 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.

5.2.3 Large Commitment of Nonrenewable Resources

Commitment of nonrenewable resources includes issues related to increased energy consumption, loss of agricultural lands, 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 Project construction. Consumption of other nonrenewable or slowly renewable resources would also occur.

These resources could include lumber and other forest products, sand and gravel, asphalt, and metals such as steel, copper, and lead.

To ensure that energy consumption is 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 (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 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 appliable 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 analysis is to evaluate whether the Project would result in the wasteful, inefficient, or unnecessary consumption of energy.

As documented in Section 4.5, Energy, new development, such as that proposed by the Project, is required to comply with California Title 24 energy efficiency requirements which is considered demonstrable evidence of efficient use of energy. The Project would provide for and promote energy efficiencies beyond those required under other applicable federal and state standards and regulations, and in doing so would meet or exceed all Title 24 standards. The Project would also be designed to achieve Leadership in Energy and Environmental Design (LEED) Silver certification. On this basis, the Project would not result in the inefficient, wasteful, or unnecessary consumption of energy.

5.3 Growth-Inducing Impacts

As stated in Section 15126.2(e) of the CEQA Guidelines, an 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 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 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 yet known, the number of jobs the Project would generate cannot be precisely determined. Thus, for purposes of this analyses, employment estimates were calculated using average employment density factors reported by Southern California Association of Governments (SCAG). SCAG reports for every 2,111 square feet of warehouse space in the County, the average number of jobs supported is one employee (SCAG 2001).

The Project would include 3,022,294 square feet of warehouse space; therefore, it is estimated approximately 1,432 employees would be required for operation of the Project.

The Town has a population of approximately 75,867 residents (U.S. Census Bureau 2022). According to the Town's General Plan, upon buildout, the Town could support a population of 185,858 residents (Town of Apple Valley 2009). The Project-related increase of approximately 1,432 employees would represent a nominal percentage of the Town's projected future population upon General Plan buildout.[1] It is anticipated 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 sanitary sewer lines, as well as storm drainage infrastructure, 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. In addition, since the surrounding Project area is already served by existing wet and dry utilities, the Project would not expand sanitary sewer or stormwater drainage infrastructure into areas not previously served by such utilities.

Further, given that the surrounding Project area is already served by existing wet and dry utilities, it is unlikely that the Project would create demand for existing community service facilities that would require construction or expansion of regional-scale facilities. 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 vicinity, 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 San Bernardino County Sheriff's 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. Therefore, an increase in school-age children requiring public education is not expected to occur as a result. For these reasons, the need for new or expanded school facilities would not be 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.

[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.

5.4 References

Town of Apple Valley. 2009. *2009 General Plan*. Adopted August 11, 2009. Accessed December 21, 2023, at https://www.applevalley.org/services/planning-division/2009-general-plan.

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SCAG (Southern California Association of Governments). 2001. Employment Density Study Summary Report. October 31, 2001. Accessed December 21, 2023, at http://www.mwcog.org/uploads/committee-documents/bl5aX1pa20091008155406.pdf.

U.S. Census Bureau. 2022. Quick Facts, Apple Valley Town, California. Accessed December 21, 2023, at https://www.census.gov/quickfacts/fact/table/applevalleytowncalifornia/PST045222.

6 Alternatives

This chapter describes alternatives to the Cordova Complex and Quarry at Pawnee Warehouse Project (Project), consistent with California Environmental Quality Act (CEQA) Guidelines Section 15126.6. This chapter presents the objectives of the Project, a summary of its significant environmental impacts, and a description of the alternatives that were considered but rejected from further consideration, followed by an analysis of the three alternatives evaluated, including the No Project Alternative. A comparison of the three alternatives to the Project is provided and the environmentally superior alternative is identified.

According to CEQA Guidelines Section 15126.6, an environmental impact report (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. The guidelines further require that the discussion focus on alternatives capable of eliminating significant adverse impacts of the project or reducing them to a level of insignificance even if these alternatives would impede to some degree the attainment of the project objectives or would be more costly. The alternatives analysis also should identify any significant effects that may result from a given alternative.

The lead agency is responsible for selecting a reasonable range of potentially feasible project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. The range of alternatives is governed by a "rule of reason" that requires the EIR to set forth only those potentially feasible alternatives necessary to permit a reasoned choice. The alternatives shall be limited to those that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only those that the lead agency determines could feasibly attain most of the basic objectives of the project. An EIR need not consider every conceivable alternative to a project. Rather, it must consider a reasonable range of potentially feasible alternatives that will foster informed decision-making and public participation.

An EIR is not required to consider alternatives which are infeasible. "Feasible" means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors (CEQA Guidelines Section 15364). 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 (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site (or already owns the alternative site). None of these factors establishes a fixed limit on the scope of reasonable alternatives.

6.1 Project Objectives

The objectives for the Project, identified in Chapter 3, Project Description, are as follows:

1. Develop a project within the North Apple Valley Industrial Specific Plan area to meet the existing and growing demand for large-format logistics and warehouse buildings in the region.
2. Develop a fiscally sound, jobs-producing, and tax-generating land use in north Apple Valley.

3. 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 pollutant emissions, industrial noise, and biological resources to the greatest extent feasible.
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.
5. Implement the development patterns envisioned in the North Apple Valley Industrial Specific Plan (NAVISP).

6.2 Overview of Significant Project Impacts

Alternatives should focus on reducing or avoiding significant environmental impacts associated with the project as proposed. As determined through the analyses in Chapter 4, Environmental Analysis, the Project would result in the following significant or potentially significant impacts, none of which could be reduced to a less-than-significant level (i.e., the impacts would be significant and unavoidable). The Project would:

Air Quality

- Conflict with or obstruct implementation of the applicable air quality plan.
- 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.
- Expose sensitive receptors to substantial pollutant concentrations.
- Have a cumulatively considerable contribution to significant cumulative air quality impacts.

Greenhouse Gas Emissions

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.
- Have a cumulatively considerable contribution to significant cumulative greenhouse gas emissions impacts.

Noise

- 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.
- Have a cumulatively considerable contribution to significant cumulative traffic noise impacts.

6.3 Alternatives Considered but Eliminated

This section discusses alternatives that were considered but were eliminated from detailed consideration because they did not meet most of the basic project objectives; were found to be infeasible for technical, environmental, or social reasons; or did not avoid or reduce the severity of the Project's significant environmental impacts.

6.3.1 Alternative Land Uses

According to the Town of Apple Valley (Apple Valley or Town) General Plan, the land use and zoning designation for the Project site is Specific Plan (SP). The Project site is located within the North Apple Valley Industrial Specific Plan and is designated as Specific Plan Industrial (I-SP). Permitted uses in the I-SP designation include manufacturing

facilities with showrooms and offices, regional warehousing facilities, and support services for manufacturing and warehousing. Land uses that deviate from these activities, including residential, standalone retail, mining, and residential mixed-use, are not identified in the North Apple Valley Industrial Specific Plan (NAVISP) as being suitable within the I-SP zone (Town of Apple Valley 2012).

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 I-SP land use designation. These land uses would require additional entitlements and discretionary approvals including an amendment to the Specific Plan. As such, without approval of a General Plan Amendment and Zone Change, which are discretionary approvals and are not required for the Project, residential, standalone retail, mining, and residential mixed-use land uses could not be developed on the Project site.

The NAVISP lists several different uses that are either specially or conditionally permitted under the I-SP designation. These include commercial storage facilities/mini-warehouses (i.e., self-storage facilities), offices, manufacturing, small and large equipment sales and rental, schools, vehicle rental and sales, minor and major vehicle repair, and vehicle wash facilities. 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 I-SP designation in the NAVISP. Alternative land uses consistent with the property's I-SP land use designation were considered and rejected because they would be expected to be at a similar development and operational intensity as the Project. Therefore, development of an alternative land use consistent with the I-SP designation would not be expected to appreciably reduce or avoid the environmental impacts of the Project.

6.3.2 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 the 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 such a property exists within the Town and is available – would merely relocate environmental impacts instead of avoiding or minimizing them.

Further, if the alternate site were to be located farther from major regional transportation routes (e.g., Interstate 15 [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 2010, 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.

Lastly, an alternative site alternative was rejected as infeasible because the Project Applicant does not own any other property that would be feasible for this project and cannot "reasonably acquire, control, or otherwise have access to [an] alternative site" (refer to Section 15126.6[f][1] of the CEQA Guidelines). In addition, the Project is not unique in that development of a similar project elsewhere would not preclude nor eliminate demand for the development of the Project on the Project site.

6.4 Alternatives Selected for Further Analysis

This section describes the alternatives to the Project that were selected and analyzed according to CEQA Guidelines Section 51526.6(a). These alternatives, including the No Project Alternative, represent a reasonable range of alternatives to the Project that would feasibly attain most of the Project's basic objectives, and would avoid or substantially lessen significant adverse environmental effects of the Project. The following three alternatives, were selected for comparative analysis in this EIR:

- **Alternative 1: No Project Alternative.** This alternative would entail no action at the Project site.
- **Alternative 2: Cordova Complex Only Alternative.** This alternative would entail development of one warehouse on the Cordova Complex site similar to the Project, with avoidance/retention of the two western Joshua trees on the site. The Quarry at Pawnee site would remain undeveloped, resulting in an overall building space reduction of approximately 48%.
- **Alternative 3: Reduced Project 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 is examined for its ability to reduce environmental impacts relative to the Project, feasibility of implementation, and ability to meet Project objectives.

6.4.1 No Project Alternative

Description

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.

Under Alternative 1, implementation 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 office spaces, surface parking and loading areas, and all other proposed on- and off-site improvements would not occur.

In the short term, consistent with existing conditions, the Project site would continue to be undeveloped. Under Alternative 1, the Project site would remain vacant, undeveloped land, although the site would presumably continue to be subject to illegal dumping, trespassing, and unpermitted off-road vehicle use, similar to the existing conditions.

Impact Analysis

The Project site would remain unchanged and would remain a vacant, undeveloped, yet disturbed property due to the illegal dumping that has occurred as well as other unauthorized access. 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 eliminated compared with Project conditions. Exceptions would include impacts related to agricultural and forestry resources, mineral resources, and recreation, which would result in no impact whether or not the Project is constructed on the Project site.

Under the No Project Alternative, no construction or ground disturbance would occur so there would be no changes to visual conditions, biological or cultural resources, ambient noise, or effects to existing resources in the Project area. There would be no air pollutant emissions or greenhouse gas (GHG) emissions associated with construction and operation activities, and no new vehicle trips. No new utilities would be needed to serve the buildings. All impacts that would occur from the Project would be avoided under this alternative.

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.

Ability to Meet Project Objectives

Overall, none of the mitigation measures (MMs) required for the Project would be necessary with Alternative 1, and Alternative 1 would not result in any significant adverse and unavoidable impacts. However, Alternative 1 would not develop a jobs-producing and tax generating land use near transportation corridors within the housing-rich Victor Valley/High Desert region (Objective 1); would not concentrate non-residential uses near existing roadways, highways, and freeways (Objective 2); would not develop a fiscally sound and employment generating land use that maximizes utilization of warehouse permitted areas (Objective 3); would not create a project that takes advantage of and enhances existing infrastructure, including the proximity to major regional roadways such as I-15, railroad service corridors, and other similar infrastructure (Objective 4); or fulfill the existing and growing demand for logistics and warehouse uses in the region through implementation of the development patterns envisioned in the NAVISP (Objective 5). As such, Alternative 1 would not meet any of the Project objectives.

6.4.2 Alternative 2: Cordova Complex Only Alternative

Under Alternative 2, a warehouse would be constructed and operated on the Cordova Complex site similar to the Project. Under this alternative, the two western Joshua trees on the site would be avoided. The 1,462,342-square-foot warehouse building proposed on the Quarry at Pawnee site as part of the Project would not be constructed and the Quarry at Pawnee site would remain vacant and undeveloped and would not remove the existing 12 western Joshua trees or the desert native plants on the site, consistent with existing conditions, and would presumably

continue to be subject to illegal dumping, trespassing, and unpermitted off-road vehicle use. Off-site roadway and utility improvements required under Alternative 2 would be reduced relative to the Project in that no roadway and utility improvements would be constructed east of Navajo Road, which includes improvements to Cordova Road between Navajo Road and Flint Road, improvements to Flint Road between Cordova Road and Quarry Road, construction of the sewer line within Cordova Road extending between the Cordova Complex site and Quarry at Pawnee site, and construction of the water line within Cordova Road from the Cordova Complex site to Flint Road and within Flint Road between Cordova Road and Quarry Road. All other off-site and on-site improvements proposed as part of the Project are assumed to still be required under Alternative 2. The number of employees would be reduced to approximately 739.

Avoidance of the two western Joshua trees on the Cordova Complex site, including a 186-foot-radius buffer in consideration of the seedbank, would result in a reduction of the available landscaping and paved parking/fire lane area in the southeastern portion of the Cordova Complex site, and a reduction of the available landscaping and paved parking/fire lane area approximately mid-way along the northern boundary of the site. In this area along the northern site boundary, the building setback would be increased by approximately 25 feet to accommodate the 186-foot seedbank buffer, resulting in a slight reduction in overall building size. For the purposes of this analysis, Alternative 2 is assumed to include construction of a warehouse on the Cordova Complex site that comprises approximately 50% of the overall size of the Project's proposed warehouse space, for a total of approximately 1,511,147 square feet. This alternative assumes that the on-site landscaping and stormwater drainage areas, and parking and fire lane areas would be redesigned, reconfigured, and/or rerouted as needed to accommodate the retention of the Joshua trees but would otherwise remain similar to the Project.

Impact Analysis

Under Alternative 2, the Project's development footprint would be reduced overall by approximately 50% compared to the Project. The Quarry at Pawnee site would remain vacant, and therefore, no impacts would occur on the Quarry at Pawnee site.

An approximately 1,511,147-square-foot warehouse would be constructed on the Cordova Complex site, similar to what is proposed for the Project, but with a reconfiguration of the site plan to avoid impacts to the two Joshua trees on site.

Aesthetics

Under Alternative 2, the Cordova Complex warehouse would be constructed and operated similar to what is planned by the Project on the Cordova Complex site. Alternative 2 would still involve the development of approximately 1,511,147 square feet of warehouse space and associated improvements, which would still be the primary visual feature on the Cordova Complex site. Aesthetic impacts on the Cordova Complex site would be similar to the Project. However, under Alternative 2, the Quarry at Pawnee site would remain in its current undeveloped condition. There would be no changes to visual conditions on the Quarry at Pawnee site. Therefore, visual changes would still occur with implementation of Alternative 2 due to the construction of a warehouse similar to the Project on the Cordova Complex site but would overall the change in views and character of the site would be of a lower magnitude since only one warehouse building would be built.

Air Quality

Under Alternative 2, the extent of construction activities would be reduced compared to the Project, because only one warehouse building would be constructed. Air pollutant emissions would be reduced in proportion to the reduction in square footage; thus, construction-related air pollutant emissions would be reduced by approximately 50%. Like the Project, Alternative 2 would include the implementation of PDFs that would serve to reduce short-term construction emissions to a level that would not exceed the thresholds of significance established by the Mojave Desert Air Quality Management District (MDAQMD). Long-term emissions resulting from operation of Alternative 2 would also be reduced by approximately 50%. As a result, emissions of NO_x and PM_{10}, would be reduced relative to the Project to a level below the MDAQMD regional air quality standard and would therefore not contribute to an existing air quality violation. Alternative 2 would generate fewer average daily vehicle trips compared to the Project due to the reduced warehouse space and impacts due to a conflict with the regional air quality standard and the level of contribution to an existing air quality violation would be reduced to less than significant. As such, Alternative 2 would reduce and avoid the Project's significant and unavoidable impacts due to operational air pollutant emissions and conflicts with the Federal Particulate Matter Attainment Plan and Ozone Attainment Plan for the Mojave Desert Air Basin (MDAB).

Impacts to nearby sensitive receptors would also be reduced to less than significant under Alternative 2, because emissions under Alternative 2 would be below the MDAQMD thresholds of significance. Therefore, air quality impacts related to conflicts with applicable air quality plans, cumulatively considerable increases in criteria pollutants, and exposure of sensitive receptors to substantial pollutant concentrations would be reduced to less-than-significant levels under Alternative 2.

Biological Resources

Under Alternative 2, the Project would be constructed and operated similar to what is planned on the Cordova Complex site, but there would be no construction on the Quarry at Pawnee site. Therefore, the overall development intensity would be reduced. Alternative 2 would develop the Cordova Complex site, resulting in a similar overall building footprint, with the exception of slight reductions to accommodate avoidance of the two Joshua trees on site. The Quarry at Pawnee site would remain vacant and undeveloped, thereby avoiding direct impacts on 12 western Joshua trees. Therefore, Alternative 2 would avoid impacts on Joshua trees. In addition, two desert native plant species were recorded within the Quarry at Pawnee site during the focused desert native plant survey: two beavertail and three silver cholla; direct impacts to these desert native plant species which would occur under the Project would be avoided under Alternative 2. Therefore, Alternative 2 would not include the removal of western Joshua tree, beavertail, and silver cholla, so in accordance with the California Desert Native Plant Act (CDNPA) and Chapter 9.76 of the Apple Valley Municipal Code, a native plant removal permit would no longer be needed to be obtained from the Town. Alternative 2 would not necessitate the preparation of a Joshua Tree Preservation, Protection, and Relocation Plan or Desert Native Plant Relocation Plan to meet the requirements of Chapter 9.76 of the Apple Valley Municipal Code to protect, preserve, and mitigate impacts to desert native plants, because they would no longer be impacted.

Other construction-related short-term impacts would still occur with construction of the Cordova Complex warehouse, including chemical spills, stormwater erosion and sedimentation, dust pollution, and increased wildfire risk. Like the Project, potential long-term (post-construction) indirect impacts from operation and maintenance activities may include changes in water quality, increased wildfire risk, induced demand of the surrounding area, increased traffic and vehicle emissions, and accidental chemical spills. Alternative 2 would still be required to adhere to applicable regulations, including preparation of a SWPPP and implementation of BMPs in compliance with the NPDES Construction General Permit, dust mitigation measures in accordance with the MDAQMD's Rules

401 and 403.2, Town and state fire safety requirements, and CALGreen requirements related to outdoor materials and trash/waste storage. As such, the Project site and potential suitable habitat would still be disturbed as a result of development activities, albeit to a smaller area, which would reduce the magnitude of impacts from a biological resources perspective. Alternative 2 would result in direct impacts to 0.84 acres of potential non-wetland waters of the state under RWQCB jurisdiction, and 0.87 acres of streambed under CDFW jurisdiction, which would be less than the Project. However, compliance with mitigation measures MM BIO-5 through MM BIO-13 would still be required to address these impacts to jurisdictional aquatic resources. Therefore, biological resources impacts would be reduced under Alternative 2.

Cultural, Tribal Cultural, and Paleontological Resources

Under Alternative 2, the Project would be constructed and operated similar to that planned for the Project on the Cordova Complex site, while the Quarry at Pawnee site would remain undeveloped. The Cordova Complex site would need to be disturbed to a similar extent as proposed by the Project, which would result in a similar potential to disturb presently unknown/unrecorded cultural, tribal cultural, and paleontological resources as the Project on the Cordova Complex site. Compliance with mitigation measures MM CUL-1 through MM CUL-3 and MM TCR-1 through MM TCR-6 and MM GEO-1 would still be required. However, no disturbance would occur on the Quarry at Pawnee site. Therefore, cultural resources impacts would be reduced 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 less than the Project. Alternative 2 would generate fewer vehicle trips per day and would have less building space than the Project as proposed; thus, on-site and mobile energy consumption would be less than the Project. Accordingly, energy usage associated with long-term operation of Alternative 2 would be reduced compared to the Project. Therefore, energy impacts would generally be reduced under Alternative 2.

Greenhouse Gas Emissions

Similar to air quality, the extent of construction activities would be reduced by approximately 50% under Alternative 2 compared to the Project, with a corresponding reduction in GHG emissions. Thus, construction related GHG emissions would be lessened. Alternative 2 would generate fewer vehicle trips per day relative to the Project due to the reduction in overall warehouse space. Accordingly, GHG emissions associated with long-term operation of Alternative 2 would be reduced by approximately 50% compared to the Project. As discussed above, the Project would result in significant and unavoidable impacts with regard to generating GHG emissions. While GHG emissions would be reduced by approximately 50% under Alternative 2, they would remain well over the significance threshold of 3,000 metric tons of carbon dioxide equivalent (MT CO_2e) per year. Implementation of mitigation measures under the Project and Alternative 2 would not reduce potential operation-related GHG emissions to less-than-significant levels. Similar to the Project, impacts would still remain significant and unavoidable and compliance with mitigation measure MM GHG-1 would still be required.

Hazards and Hazardous Materials

Under Alternative 2, the Cordova Complex site would be developed with a similar development intensity as the Project and the Quarry at Pawnee site would not be developed. Like the Project, Alternative 2 would still require compliance with all applicable federal, state, and local regulations pertaining to hazards and hazardous materials. Therefore, hazards and hazardous materials impacts would be similar under Alternative 2.

Hydrology and Water Quality

Under Alternative 2, the new engineered stormwater drainage system would be constructed on the Cordova Complex site as proposed under the Project, and the Quarry at Pawnee site would remain undeveloped with no storm drain or treatment facilities. Under Alternative 2, the Cordova Complex site and its 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 Project, regardless of the size of the Project. Therefore, hydrology and water quality impacts would be similar under Alternative 2.

Land Use and Planning

Similar to the Project, Alternative 2 would be consistent with the Project site's existing NAVISP land use designation and zoning. 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 cover a smaller physical area due to the fact that the Quarry at Pawnee site would not be developed. The types of construction equipment used, and the types of construction activities conducted on the Cordova Complex site would be similar under Alternative 2, and the peak daily noise levels generated during the construction phase would also be similar.

Long-term operational 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 fewer daily trips compared to the Project, and, as such, would contribute to a corresponding reduction in traffic-related noise on local roadways compared to the Project. The traffic noise levels under Alternative 2 would be reduced by approximately 3 decibels (dB) relative to the Project. With a 3-dB reduction, predicted noise increases at receivers would not exceed the applicable significance threshold of an increase of 5 dB or more used for traffic noise. Therefore, noise impacts would be reduced to less than significant under Alternative 2.

Transportation

As presented in Appendix C, the Cordova Complex warehouse would generate 5,173 daily passenger car equivalent (PCE) trips and the Quarry at Pawnee warehouse would generate 4,849 daily PCE trips. Alternative 2 would result in no trip generation associated with the Quarry at Pawnee warehouse, and would have similar, though slightly reduced daily trips and trip generation due to the slightly reduced warehouse size, as described for the Cordova Complex site. Thus, Alternative 2 would result in fewer vehicle trips than the Project.

Vehicle miles traveled (VMT) is 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. However, the reduced warehouse size would support fewer employees than the Project. Therefore, transportation impacts with regard to VMT would be reduced under Alternative 2.

Utilities and Service Systems

Under Alternative 2, development would occur on the Cordova Complex site similar to the Project, while the Quarry at Pawnee site would remain vacant. In addition, no off-site improvements would be constructed east of Navajo Road. Wet and dry utilities would still be required to serve the Cordova Complex site, with construction and operational characteristics of these on- and off-site improvements being similar to the Project, but to a lesser extent than the Project. Therefore, utilities and service systems impacts would be reduced under Alternative 2.

Ability to Meet Project Objectives

Alternative 2 would result in avoidance of biological resource impacts related to Joshua trees and desert native plants, and a reduction in magnitude of air quality and noise impacts from significant and unavoidable to less than significant. Alternative 2 would also generally result in incremental reductions in the severity of impacts related to aesthetics; air quality; biological resources; cultural, tribal cultural, and paleontological resources; energy; GHG emissions; noise; transportation; and utilities and service systems. Although impacts would generally be incrementally reduced, impacts would not be reduced below a level of significance in the case of significant and unavoidable impacts that have been identified for the Project related to GHG emissions. MM BIO-1 through MM BIO-4 would not be applicable to Alternative 2, because impacts to Joshua trees and desert native plant species would be avoided. All of the other mitigation measures required for the Project would also apply to Alternative 2, as the land use type and construction and operation characteristics would also be relatively similar.

As a 1,511,147-square-foot warehouse on the Cordova Complex site, Alternative 2 would meet the Project objectives, including providing industrial uses within the NAVISP (Objective 1), developing a jobs-producing and tax-generating land use in north Apple Valley (Objective 2); concentrating non-residential uses near existing roadways, highways, and freeways (Objective 3); creating a project that takes advantage of and enhances existing infrastructure, including the proximity to major regional roadways such as I-15, railroad service corridors, and other similar infrastructure (Objective 4); and implementing development patterns envisioned in the NAVISP (Objective 5). However, Objectives 1, 2, and 5 would not be met to the same degree as the Project because Alternative 2 would result in the development of one (rather than two) warehouse. Therefore, Alternative 2 would provide less industrial uses than the Project (Objective 1), would generate fewer jobs and taxes (Objective 2), and would implement NAVISP development patterns on only one site instead of two (Objective 5).

6.4.3 Alternative 3: Reduced Project Alternative

Under Alternative 3, 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 779,976 square feet on the Cordova Complex site and 731,171 square feet on the Quarry at Pawnee site, for a total size of 1,511,147 square feet, compared to the Project's total of 3,022,294 square feet. All other on-site and off-site improvements are assumed to still be required for Alternative 3. Since the building footprint would be reduced by a total of 1,511,147 square feet (approximately 18 acres on the Cordova Complex site and 17 acres on the Quarry at Pawnee site for a total of 35 acres), this extra space on the Project site would remain vacant. This would allow for avoidance of the two Joshua trees on the Cordova Complex site, and avoidance of some, but not all, of the Joshua trees on the Quarry at Pawnee site. In addition, the desert native plants on the Quarry at Pawnee site are assumed to be avoided. All other on- and off-site improvements proposed as part of the Project are assumed to still be required under Alternative 3. The number of employees would be reduced to approximately 716.

Impact Analysis

Under Alternative 3, 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 duration of construction activities and operational intensity 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 reduced under Alternative 3. The environmental impacts that would have a reduction in severity include aesthetics, air quality, energy, GHG emissions, noise, and transportation. However, because the development intensity would be reduced under Alternative 3 compared to the Project, certain environmental impacts would differ as a result of this reduction, as the following analysis demonstrates.

Aesthetics

Under Alternative 3, 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 approximately 35 acres of undeveloped land on the Project site. A reduction in building square footage would reduce the scale and massing of the buildings. Nonetheless, Alternative 3 would still involve the development of two warehouses approximately 730,000 to 780,000 square feet in size, which would still be the primary visual feature on the Project site. For these reasons, aesthetics impacts would be similar but lessened 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 lessened. As with the Project, Alternative 3 would include implementation of PDFs that would serve to reduce short-term construction emissions to a level that would not exceed the thresholds of significance established by the MDAQMD. Alternative 3 would generate fewer vehicle trips including truck trips per day due to the reduction in the amount of building space. Accordingly, air pollutant emissions associated with long-term operation of Alternative 3 would be reduced as compared to the Project. Long-term operation of Alternative 3 would be reduced in proportion to the reduction in square footage, which would reduce the significant and unavoidable impacts of the Project due to emissions of NO_x and PM_{10} in exceedance of MDAQMD thresholds to a less-than-significant level. Therefore, Alternative 3 would reduce and avoid the Project's significant and unavoidable impacts due to operational air pollutant emissions and conflicts with the Federal Particulate Matter Attainment Plan and Ozone Attainment Plan for the MDAB, as would occur under the Project.

Impacts to nearby sensitive receptors would also be reduced to less than significant under Alternative 3 because emissions under Alternative 3 would be below the MDAQMD thresholds of significance. Therefore, air quality impacts related to conflicts with applicable air quality plans, cumulatively considerable increases in criteria pollutants, and exposure of sensitive receptors to substantial pollutant concentrations would be reduced to less-than-significant levels under Alternative 3.

Biological Resources

Under Alternative 3, 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 3 would develop less of the Project site, resulting in a smaller overall building footprint. With smaller building footprints, direct impacts to the two western Joshua tree individuals on the Cordova Complex site could be avoided; on the Quarry at Pawnee site, due to the locations of the existing 12 western Joshua tree individuals (i.e., the majority concentrated around the

middle of the site), direct impacts could be avoided to some, but not all, of the trees. Other desert native plants occurring on the Quarry at Pawnee site that would be impacted by the Project, which include beavertail and silver cholla, occur on the southern half of the Quarry at Pawnee site and could likely be avoided with the reduced warehouse size. Compliance with mitigation measures MM BIO-1 through MM BIO-13 would still be required. Therefore, biological resources impacts would be reduced under Alternative 3.

Cultural, Tribal Cultural, and Paleontological Resources

Under Alternative 3, the Project would be constructed and operated as planned on the Project site, but with a reduced development intensity. Compared to the Project, Alternative 3 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. As such, the Project site would still be disturbed but to a lesser extent, which would result in a reduced potential to disturb presently unknown/unrecorded cultural, tribal cultural, and paleontological resources as the Project. Compliance with mitigation measures MM CUL-1 through MM CUL-3 and MM TCR-1 through MM TCR-6 and MM GEO-1 would still be required. Therefore, cultural resources impacts would be similar under Alternative 3 but slightly less than under the Project.

Energy

The level of construction activities would be reduced under Alternative 3 compared to the Project. Thus, construction-related energy usage would be lessened. Alternative 3 would also generate fewer vehicle trips per day and would have a less building space than the Project as proposed, resulting in less on-site and mobile energy consumption. Accordingly, energy usage associated with long-term operation of Alternative 3 would be lessened compared to the Project. Therefore, energy impacts would be reduced under Alternative 3.

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 lessened. Alternative 3 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 3 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 mitigation measure MM GHG-1 would reduce potential operation-related GHG emissions, the same as the Project. While GHG emissions would be reduced by approximately 50% under Alternative 3, they would remain well over the significance threshold of 3,000 MT CO_2e per year. In order to reduce potentially significant impacts associated with GHG emissions, the Project would need to be reduced in size by 95% to approximately 150,000 square feet to eliminate this impact. Based Therefore, based on a 50% reduction in development, GHG emissions impacts would be reduced under Alternative 3, but would still remain significant and unavoidable.

Hazards and Hazardous Materials

Under Alternative 3, the Project would be constructed and operated as planned on the site, with the exception that the development intensity would be reduced. Like the Project, Alternative 3 would still require compliance with all applicable federal, state, and local regulations pertaining to hazards and hazardous materials. Therefore, hazards and hazardous materials impacts would be similar to the Project under Alternative 3.

Hydrology and Water Quality

Under Alternative 3, 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 present, and thus, stormwater is not presently collected or treated on the Project site prior to either percolating into the soil or 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 as related to stormwater infrastructure and water quality the same as the Project. This would include during both construction and operation of the Project, regardless of the size of the Project. Therefore, hydrology and water quality impacts would be similar to the Project under Alternative 3.

Land Use and Planning

Similar to the Project, Alternative 3 would be consistent with the Project site's existing NAVISP land use designation and zoning. Given the substantial similarities in uses between the Project and Alternative 3, Alternative 3 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 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 be in a similar physical area. However, because Alternative 3 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 slightly decrease under Alternative 3 as compared to the Project. Nonetheless, the types of construction equipment and 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 fewer daily trips than the Project, and, as such, would contribute less traffic-related noise to local roadways than the Project. With the reduction in warehouse size and associated vehicle trips, traffic noise associated with Alternative 3 would be reduced by approximately 3 dB relative to the Project. With a 3-dB reduction, noise levels would not exceed the applicable significance threshold of an increase of 5 dB or more used for traffic noise. Therefore, noise impacts would be reduced to less than significant under Alternative 3.

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 have an effect on a project's average trip length. Thus, while under Alternative 3 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 3 as the Project's VMT per employee. Therefore, transportation impacts with regard to VMT would be similar under Alternative 3. However, trip generation would be reduced with Alternative 3 because Alternative 3 would have fewer employees.

Utilities and Service Systems

Under Alternative 3, 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%. Solid waste generation would be somewhat reduced relative to the Project due to the smaller Project footprint and associated reduction in construction materials and number of employees that would be on site. Similarly, Alternative 3 would result in less water use and wastewater generation associated with a smaller building footprint and fewer employees. 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 or slightly reduced under Alternative 3.

Ability to Meet Project Objectives

Based on the above, given that Alternative 3 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 3 would result in incremental reductions in the severity of impacts related to aesthetics, air quality, energy, GHG emissions, noise, and transportation. Alternative 3 would result in a reduction in magnitude of air quality and noise impacts from significant and unavoidable to less than significant. All of the mitigation measures required for the Project would be necessary for Alternative 3, and no new measures would be required.

Alternative 3 would be expected to satisfy the Project objectives, concentrating non-residential uses near existing roadways, highways, and freeways (Objective 3); creating a project that takes advantage of and enhances existing infrastructure, including the proximity to major regional roadways such as I-15, railroad service corridors, and other similar infrastructure (Objective 4); and implementing development patterns envisioned in the NAVISP (Objective 5 However, Objectives 1, 2, and 5 would not be met to the same degree as the Project because Alternative 3 would result in the development of less overall warehouse space through two smaller warehouses. Therefore, Alternative 3 would provide less industrial uses than the Project (Objective 1), would create approximately 716 jobs, which is approximately half the number of jobs that would be created by the Project (Objective 2), and would implement NAVISP development patterns but at a reduced magnitude (Objective 5).

6.5 Environmentally Superior Alternative

CEQA Guidelines Section 15126.6(a) requires that an EIR's analysis of alternatives identify the "environmentally superior alternative" among all of those considered. In addition, Section 15126.6 [e][2] states that if the environmentally superior alternative is the No Project Alternative, the EIR must also identify an environmentally superior alternative among the other alternatives. Furthermore, Sections 21002 and 21081 of the Public Resources Code require lead agencies to adopt feasible mitigation measures or feasible alternatives in order to substantially lessen or avoid otherwise significant adverse environmental effects, unless specific social or other conditions make such mitigation measures or alternatives infeasible.

Table 6-1 provides a comparison of the Project with the Project alternatives based on the environmental topic areas addressed in Chapter 4, Environmental Impact Analysis, of this EIR. Table 6-2 presents how the Project and each of the Project alternatives compare in terms of meeting the Project objectives.

Table 6-1. Comparison of Impacts of the Project and Alternatives

Environmental Topic	Project	Alternative 1: No Project Alternative	Alternative 2: Cordova Complex Only Alternative	Alternative 3: Reduced Project Alternative
Aesthetics				
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?	LS	NI	LS ↓	LS ↓
Would the Project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	LS	NI	LS ≈	LS ≈
Would the Project result in cumulatively considerable impacts related to aesthetics?	LS	NI	LS ≈	LS ≈
Air Quality				
Would the Project conflict with or obstruct implementation of the applicable air quality plan?	SU	NI	**LS**	LS
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?	SU	NI	**LS**	LS
Would the Project expose sensitive receptors to substantial pollutant concentrations?	SU	NI	**LS**	LS
Would the Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	LS	NI	LS ≈	LS ≈
Would the Project result in cumulatively considerable impacts related to air quality?	SU	NI	**LS**	LS
Biological Resources				
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?	LSM	NI	LS	LSM ↓
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?	LSM	NI	LSM ↓	LSM ↓

Table 6-1. Comparison of Impacts of the Project and Alternatives

Environmental Topic	Project	Alternative 1: No Project Alternative	Alternative 2: Cordova Complex Only Alternative	Alternative 3: Reduced Project Alternative
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?	LSM	NI	LSM ↓	LSM ↓
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?	LS	NI	LS ↓	LS ↓
Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	LSM	NI	LSM ↓	LSM ↓
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?	LS	NI	LS ≈	LS ≈
Would the Project result in cumulatively considerable impacts related to biological resources?	LSM	NI	LSM ≈	LSM ≈
Cultural and Tribal Cultural Resources				
Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	LSM	NI	LSM ↓	LSM ↓
Would the Project disturb any human remains, including those interred outside of dedicated cemeteries?	LS	NI	LS ↓	LS ↓
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)?	LSM	NI	LSM ↓	LSM ↓

Table 6-1. Comparison of Impacts of the Project and Alternatives

Environmental Topic	Project	Alternative 1: No Project Alternative	Alternative 2: Cordova Complex Only Alternative	Alternative 3: Reduced Project Alternative
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.	LSM	NI	LSM ↓	LSM ↓
Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	LSM	NI	LSM ↓	LSM ↓
Would the Project result in cumulatively considerable impacts related to cultural, tribal cultural, or paleontological resources?	LSM	NI	LSM ↓	LSM ↓
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?	LS	NI	LS ≈	LS ↓
Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	LS	NI	LS ≈	LS ↓
Would the Project result in cumulatively considerable impacts related to energy?	LS	NI	LS ≈	LS ↓
Greenhouse Gas Emissions				
Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	SU	NI	SU ↓	SU ↓
Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	SU	NI	SU ↓	SU ↓

Table 6-1. Comparison of Impacts of the Project and Alternatives

Environmental Topic	Project	Alternative 1: No Project Alternative	Alternative 2: Cordova Complex Only Alternative	Alternative 3: Reduced Project Alternative
Would the Project Would the Project result in cumulatively considerable impacts related to greenhouse gas emissions?	SU	NI	SU ↓	SU ↓
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 hazardous materials?	LS	NI	LS ≈	LS ≈
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?	LS	NI	LS ≈	LS ≈
Would the Project result in cumulatively considerable impacts related to hazards and hazardous materials?	LS	NI	LS ≈	LS ≈
Hydrology and Water Quality				
Would the Project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	LS	LS ↑	LS ≈	LS ≈
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?	LS	NI	LS ≈	LS ≈
Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	—	—	—	—
(i) Result in substantial erosion or siltation on or off site?	LS	LS ↑	LS ≈	LS ≈
(ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site?	LS	LS ↑	LS ≈	LS ≈
(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?	LS	LS ↑	LS ≈	LS ≈

Table 6-1. Comparison of Impacts of the Project and Alternatives

Environmental Topic	Project	Alternative 1: No Project Alternative	Alternative 2: Cordova Complex Only Alternative	Alternative 3: Reduced Project Alternative
(iv) Impede or redirect flood flows?	LS	LS ↑	LS ≈	LS ≈
Would the Project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	LS	NI	LS ≈	LS ≈
Would the Project result in cumulatively considerable impacts related to hydrology and water quality?	LS	LS ≈	LS ≈	LS ≈
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?	LS	NI	LS ≈	LS ≈
Would the Project result in cumulatively considerable impacts related to land use and planning?	LS	NI	LS ≈	LS ≈
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?	SU	NI	**LS**	**LS**
Would the Project result in generation of excessive groundborne vibration or groundborne noise levels?	LS	NI	LS ≈	LS ≈
Would the Project result in cumulatively considerable impacts related to noise?	SU	NI	**LS**	**LS**
Transportation				
Would the Project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	LS	NI	LS ≈	LS ≈
Would the Project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	LS	NI	LS ↓	LS ↓
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)?	LS	NI	LS ≈	LS ≈

Table 6-1. Comparison of Impacts of the Project and Alternatives

Environmental Topic	Project	Alternative 1: No Project Alternative	Alternative 2: Cordova Complex Only Alternative	Alternative 3: Reduced Project Alternative
Would the Project result in inadequate emergency access?	LS	NI	LS ≈	LS ≈
Would the Project result in cumulatively considerable impacts related to transportation?	LS	NI	LS ↓	LS ↓
Utilities and Service Systems				
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?	LS	NI	LS ↓	LS ≈
Would the Project have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years?	LS	NI	LS ↓	LS ≈
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?	LS	NI	LS ↓	LS ≈
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?	LS	NI	LS ↓	LS ≈
Would the Project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	LS	NI	LS ↓	LS ≈
Would the Project result in cumulatively considerable impacts related to utilities and service systems?	LS	NI	LS ↓	LS ≈

Notes: NI = no impact; LS = less than significant; LSM = less than significant with mitigation; SU = significant and unavoidable; ↑ = greater; ↓ = lesser; ≈ = similar.

Table 6-2. Project and Alternatives' Ability to Meet Project Objectives

Project Objective	Would the Project or Alternative Meet the Project Objective?			
	Project	Alternative 1: No Project Alternative	Alternative 2: Cordova Complex Only Alternative	Alternative 3: Reduced Project Alternative
1. Develop a project within the North Apple Valley Industrial Specific Plan area to meet the existing and growing demand for large-format logistics and warehouse buildings in the region.	Yes	No	Not to the same extent as the Project	Not to the same extent as the Project
2. Develop a fiscally sound, jobs-producing, and tax-generating land use in north Apple Valley.	Yes	No	Not to the same extent as the Project	Not to the same extent as the Project
3. 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 pollutant emissions, industrial noise, and biological resources to the greatest extent feasible.	Yes	No	Yes	Yes
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
5. Implement the development patterns envisioned in the North Apple Valley Industrial Specific Plan (NAVISP).	Yes	No	Not to the same extent as the Project	Not to the same extent as the Project

Each of the three Project alternatives considered herein would lessen at least one environmental impact relative to the Project. As previously addressed, if the No Project Alternative is the environmentally superior alternative—which is the case in this analysis—the EIR must also identify another environmentally superior alternative among the remaining alternatives.

Alternative 2 and Alternative 3 would both generally result in a reduction in the magnitude of many Project impacts. Impacts associated with air quality; cultural, tribal cultural, and paleontological resources; hazards and hazardous materials; hydrology and water quality; transportation; and noise would be similar under Alternative 2 and Alternative 3. Both Alternative 2 and Alternative 3 would reduce impacts compared to the Project, notably including the elimination of significant and unavoidable impacts related to air quality and noise. However, Alternative 2 and Alternative 3 would not lessen impacts related to GHG emissions to below a level of significance; therefore, GHG-related impacts would remain significant and unavoidable. While Alternative 2 and Alternative 3 would both ultimately include a similar overall amount of warehouse space, Alternative 2 would involve only one warehouse, which would result in less of a change in views and visual character due to the concentration on one site.

Additionally, Alternative 2 would avoid biological resource impacts related to Joshua trees and desert native plants, while Alternative 3 would not be able to completely avoid impacts to Joshua trees or desert plants. Both Alternative 2 and Alternative 3 would similarly meet most, but not all, of the Project objectives. Therefore, Alternative 2 is the environmentally superior alternative under CEQA, as it would reduce the magnitude of most Project impacts, eliminate the Project's significant and unavoidable impacts related to air quality and noise, and avoid some of the Project's impacts on biological resources.

However, Alternative 2 would not meet the Project Objective 1 of developing industrial uses within the NAVISP to the same magnitude as the Project, as it would result in the construction of one warehouse building instead of two with overall less industrial space. Alternative 2 would also not meet Objective 2 to the same extent as the Project. Alternative 2 would produce fewer jobs and generate less tax revenue compared to the Project. In addition, Alternative 2 would also not meet Objective 5 to the same extent as the Project. Therefore, while Alternative 2 would have reduced impacts compared to the Project, it would not eliminate all of the significant and unavoidable impacts of the Project and it would not meet all Project objectives to the same extent as the Project.

6.6 References

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